

Bodies by Art Fashioned: Anatomy, Anatomists,  
and English Poetry 1570-1680.

Jonathan Hugh Sawday  
University College London  
Ph.D. Thesis

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### Abstract of Thesis

The thesis explores the way in which anatomical discussion of the human body in the period c.1570-c.1680 informs a range of 16th and 17th century poetic texts. It begins with an account of the study of anatomy in England in the years between the publication of Vesalius' observations of the body and the appearance of Harvey's ideas on the circulation of the blood in 1628, and argues that the language, the religious significance, the practice, and the patterns of symbolism in the Renaissance anatomy lesson were all factors which were well understood by poets as diverse as Spenser, Sir John Davies, John Davies of Hereford, and, above all, Donne. The style of enquiry which was fostered by anatomists, and in particular the methodological problems associated with the dissection of the human body, are traced in anatomical text-books of the period, in theological writing, and in the work of the "Encyclopaedic" authors of the 16th century: Ambroise Paré, Phillipe de Mornay, and Pierre de la Primaudaye.

The poetry of Phineas Fletcher, in particular his epic poem The Purple Island (1633), represents the climax of this conjunction between anatomical and poetic discourse. An extended discussion of this poem shows it to be an attempt at transforming the language and practice of anatomy into a means of expressing religious, political, and methodological confrontation. Fletcher's poem can be understood not as an incongruous fusion of poetry and science, but as an extended rehearsal of a well-established tradition of poetic accounts of the body discernable in the writings of Spenser and Donne, and in the poetic anatomization found in Sylvester's translation of the Divine Weekes of Du Bartas.

Fletcher's poem is, however, virtually the last attempt at exploring this tradition. With the single exception of Joseph Beaumont's Psyche (1648), which is discussed in relation to The Purple Island, the history of anatomy and poetry is now one of disjunction. This theme is considered in the second half of the thesis. The replacement of intellectual systems of enquiry based on an understanding of "correspondence" by "mechanistic" accounts of the body is held to be at the root of the fracture between anatomists and poets. The language of figures such as Ross, Van Helmont, Harvey, Willis, Collins, and Charleton, together with the work of the theoreticians of language associated with the early years of The Royal Society, are compared to older styles of anatomic writing to reveal poetic accounts of the human body to be indebted to increasingly anachronistic images and ideas. After Harvey's work has become generally known in England it appears that poets such as Thomas Randolph, Margaret Cavendish, and John Collop resort to a language which is no longer the shared preserve of the scientist and the poet. This break-down of shared assumptions results in the transfer of attention, on the part of the poets, from the body itself to the scientist who explores the body. In the writings of Cowley, Dryden, and Jane Barker, the scientist emerges as a central figure. Imagined as a new Apollo, a heroic discoverer, his strangest transformation is that whereby he is imagined as the micro-cosmic voyager and narrator of the body.

## abstract (cont.)

The displacement of the body from poetry is, however, challenged in the writings of Thomas Traherne. The final chapter of the thesis (which functions as a conclusion to the study as a whole) argues that, in Traherne's poetry and prose, an attempt at synthesizing the poetic and the scientific understanding of the body is discernable. Traherne's writings are discussed in the context of both the Royal Society's pronouncements on language and the work of the group with which he has been most closely associated - the Cambridge Platonists. What is revealed is that Traherne is not (as has often been claimed) an intellectual "conservative", but rather he asserts the view that fideism and rationalism can be harmonized under a system in which the anatomist and the poet once more share a common task.



## Table of Contents

Abstract	2
Table of Contents	4
Acknowledgements	6
Abbreviations	7
Table of Illustrations	8
General Introduction	10

### Part I

Ch. 1.	"An Irksome and Cruel Thing": The Study of Anatomy in England Before Harvey.	
i.	Introduction	25
ii.	Anatomy in England	28
iii.	The Anatomy Lesson	31
iv.	Anatomical Books in England Before Harvey	38
v.	Correspondence	42
vi.	The Uses of Anatomy	46
vii.	Conclusion	53
	Notes to Ch. 1	55
Ch. 2.	Anatomy and the Question of Method.	
i.	Introduction	61
ii.	Methods of Dissection	63
iii.	The Body as Building	69
iv.	The Encyclopaedia and Anatomy	72
v.	Conclusion: Anatomy and Methodology	97
	Notes to Ch. 2	101
Ch. 3.	"A Strange Though Native Coast": <u>The Purple Island</u> of Phineas Fletcher.	
i.	Introduction	107
ii.	Precursors of <u>The Purple Island</u>	108
iii.	<u>The Purple Island</u> (I): Religion and Politics	132
iv.	<u>The Purple Island</u> (II): Order and Dissection	141
v.	Conclusion: A Reply to <u>The Purple Island</u>	149
	Notes to Ch. 3	156
Ch. 4.	"To'our Bodies turne wee then": Dissection and Self-dissection in Donne's Writing.	
i.	Introduction	163
ii.	Donne's Critics and His Anatomy	167
iii.	Dissecting the Self: The Songs and Sonnets	170
iv.	"Physition and Patient": Donne as his own Anatomist	189
v.	Anatomizing the World: The Anniversaries	217
vi.	Conclusion	228
	Notes to Ch. 4	232

## Contents (cont.)

## Part II

Ch. 5.	The Body Machine: The Language of Anatomy in the Seventeenth Century.	
i.	Introduction	241
ii.	The Sporting Rules of a Microcosm	245
iii.	The Attack on Figurative Language	255
iv.	Man the Machine	265
v.	Conclusion	278
	Notes to Ch. 5	285
Ch. 6.	Exploring the Poetic Body: Poetry After Harvey	
i.	Introduction	292
ii.	"Bodies By Art Fashioned"	295
iii.	The Anatomical Journey	312
iv.	Conclusion	328
	Notes to Ch. 6	331
Ch. 7.	Conclusion: Thomas Traherne and the Body	
i.	Introduction	337
ii.	"Unsearchable Offices"	338
iii.	The Invisible Eye	349
	Notes to Ch. 7.	366
	List of Published Material submitted with the Thesis	370
	Bibliography of Works Cited	
(a)	Bibliographic and Reference Works	371
(b)	Primary Sources	372
(c)	Secondary Sources	383

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Abbreviations

AMH	Annals of Medical History
BHM	Bulletin of the History of Medicine
BIHM	Bulletin of the Institute of the History of Medicine
BMJ	British Medical Journal
DNB	Dictionary of National Biography
ELH	English Literary History
ELR	English Literary Renaissance
HLQ	Huntington Library Quarterly
JEGP	Journal of English and Germanic Philology
JHI	Journal of the History of Ideas
JHM	Journal of the History of Medicine
MH	Medical History
MLN	Modern Language Notes
MLR	Modern Language Review
MP	Modern Philology
NQ	Notes and Queries
OED	Oxford English Dictionary
PMLA	Publications of the Modern Language Association of America
PQ	Philological Quarterly
RES	Review of English Studies
SP	Studies in Philology



### Table of Illustrations

- Figure 1. Interior of the Leiden Anatomy Theatre. Published by Jacob Marcus, 1609. From Leiden University Library, shelf mark: Port. 315-III. 19.  
p. 32.
- Figure 2. Interior of the Leiden Anatomy Theatre. Published by Andries Clouk, 1610. From Leiden University Library, shelf-mark: Port. 315-III. 20.  
p. 33.
- Figure 3. Detail from the title-page of Peter Pauw, De Humani Corporis Ossibus (Leiden, 1615). B.L. copy 548. C. 7.  
p. 35.
- Figure 4. Pp. 40-41 of Phineas Fletcher, The Purple Island (Cambridge, 1633). B.L. copy C. 34. g. 33.  
p. 146.
- Figure 5. Title-page of Andreas Vesalius, De Humani Corporis Fabrica (Basel, 1543). Reproduced from J. B. de C. M. Saunders & C. D. O'Malley (eds.), The Illustrations from the Works of Andreas Vesalius (New York: Dover Publications Inc., 1950) p. 43.  
p. 175.
- Figure 6. An anatomy lesson. From Johannes de Ketham, Fasciculus Medicine (Venice, 3rd ed., 1495). Reproduced from Ludwig Choulant, History and Bibliography of Anatomic Illustration, ed. and trans. Mortimer Frank (New York: Hafner Publishing Co., 1945 rpt. 1962) p. 118.  
p. 185.
- Figure 7. Osteological figure from Vesalius, De Humani Corporis Fabrica Bk. 1. Reproduced from Saunders and O'Malley, p. 87.  
p. 188.
- Figure 8. Muscular figure from Vesalius, De Humani Corporis Fabrica, Bk. 2. Reproduced from Saunders and O'Malley, p. 103.  
p. 203.

Illustrations (cont.)

- Figure 9. Muscular figure from Vesalius, De Humani Corporis Fabrica, Bk. 2. Reproduced from Saunders and O'Malley, p. 105.  
p. 204
- Figure 10. Dissected Figure. Copperplate engraving by Pietro Berrettini, c. 1620. B.L. 301. bb. 7.  
p. 208.
- Figure 11. Dissected figure. Copperplate engraving from Andreas Spigelius, De Humani Corporis Fabrica (Venice, 1627) p. 57. B.L. copy 544 L. 10 (2).  
p. 209.
- Figure 12. Dissected figure. Copperplate engraving from Spigelius, De Humani Corporis Fabrica, p. 26. B.L. copy 544 L. 10 (2).  
p. 210.
- Figure 13. Dissected figure. From Jacopo Berengario da Carpi (Berengarius), Isagoge Breves (Venice, 1535) p. 6. B.L. copy C. 112. 6. 19.  
p. 212.
- Figure 14. Title-page from Spigelius, De Humani Corporis Fabrica B.L. copy 544 L. 10 (2).  
p. 216.

## GENERAL INTRODUCTION

Even now, after so many voyages within, so much exploration, I feel the same sense that one must not gaze into the body, the same irrational fear that it is an evil deed for which punishment awaits. Consider. The sight of our internal organs is denied us. To how many men is it given to look upon their own spleens, their hearts, and live. The hidden geography of the body is a Medusa's head one glimpse of which will render blind the presumptuous eye.

1

An idle writer who wished to compile a purely literary anthology of a single anatomical organ would find the task infinite. Of the less well-known organs he would find a vast traditional fear and awe; of external anatomical regions, an endless projection of people's ignorance, fancies, and empirical observations bordering on science.

2

This study is concerned with the perception and investigation of the human body over the course of roughly one hundred and fifty years. The period is marked, at the outset, by the publication of Vesalius's volume of drawing and observations in 1543, and it closes with the general acceptance, at some point in the late seventeenth century, of the idea that the body could be understood as a "system" of functions operating in a fashion analogous to a machine. Within this time-span the study of the body, or more precisely the anatomical study of the body, underwent a phase of expansion which has been termed an "anatomical Renaissance".<sup>3</sup> This Renaissance might be thought of as a mirror of the Renaissance in thought, literature, and art which, in England, is normally associated with the period between the mid sixteenth century and the later seventeenth century.

Thus, the early part of the period sees the great works of the classical medical corpus being made available (in particular the numerous writings of Galen, and the wealth of commentary which his observations attracted) in the editions and translations of Linacre and Guinther of Andernacht. In the mid-part of the sixteenth century



the observations of Vesalius (in themselves not original, but published in a form which was to become the standard by which to judge the pictorial representation of the body) were followed by a series of remarkable discoveries which began to chart the interior geography of the human frame. Eustachio's work on the ear, Fallopio on the female reproductive organs, Realdus Columbus and Fabricius of Aquapendente on the venous system, Michael Servetus on the pulmonary transit of the blood, all these reach a type of climax of discovery with the publication of Harvey's description of the circulation of the blood in 1628.

Harvey, of course, was not merely a discoverer of functions such as circulation, or processes such as the formation and growth of the embryo. His work also represents a vindication of methodology - the methods of observation, deduction, and experimentation - which came to dominate science in the seventeenth century and later. But, following on from Harvey, and still concerning ourselves with discovery, the later part of the period covered by this study is the period in which the body is begun to be thought of as a system of functions, rather than a collection of anatomical regions existing within a hierarchical relationship. Thus, Thomas Willis, Richard Lower, Walter Charleton, and others began to probe the mechanics of the respiratory system, the operation of the brain, the nervous system, and the movement of the heart. This period might be represented by the very title of a work which appeared in 1685: the System of Anatomy of Samuel Collins, a physician and Fellow of the London College of Physicians. The word "system" in the title of Collins's book might be taken as signifying both anatomical method and conception of the body.

To describe the "anatomical Renaissance" in this way, however, is to ignore the complex patterns of symbolism, ritual, metaphor, meaning,

and association which the exploration of the body engendered in the sixteenth and seventeenth centuries. Furthermore, to present the history of anatomical investigation as a triumphal progress from a state of (relative) ignorance to one of (relative) knowledge, is to say nothing of the enormous variety of texts produced in the period. So, though the works of Vesalius, Harvey, Willis, and others feature in this study, its concern is not with the re-telling of the "story" of the discovery of the body.

Instead, the purpose of this account can be stated in wider, cultural, terms. It is a premise of what follows that anatomy, as a science, does not take place within a conceptual and linguistic vacuum. Debates concerning method, political structure, religious belief, and, above all, the means whereby what is observed, imagined, or guessed at, can be recorded may all conspire to produce an image, or series of images, of the body. At the same time poetry, in a period which, traditionally, has been seen as one of enormous poetic richness, is not divorced from other forms of discourse. This study, therefore, seeks to replace the body within a cultural framework, to understand it as it was once understood, and as it appeared in a wide variety of what have long been considered as different kinds of writing. These kinds of writing range from the "scientific" treatise (where "science" is a term used, as it is throughout this study, in its modern sense, denotive of the supposedly objective description of the natural world), through to the epic poem, the lyric, the religious meditation, the philosophical poem, and the scientific text-book. In exploring these texts, however, I have tried to keep in mind the fact that the understanding of the body in the sixteenth and seventeenth centuries was not just a matter of writing down what was observed by the scientist or, for that matter, by

the poet. For example, the architectural construction of the Renaissance anatomy theatre - a structure which embodied a dense network of meanings and associations - has much to tell us about the symbolic status of the dissected human frame. Similarly, the rituals attendant upon the three day process of dissection, and the conventions of anatomic illustration, may all help to provide the context out of which emerges the type of imagery we might associate with Donne's poetry, or the writings of Traherne.

This study is not, however, an investigation of the sources of a certain kind of poetic imagery in the Renaissance. Instead, I have tried to trace the conjunction between what are now considered to be autonomous forms of discourse. As this study moves forward, though, it will be seen that a disjunction between the scientific and the poetic begins to emerge. Whilst it might be said that the body itself remains stable, the representation of the body is highly unstable. In the period bounded by the terminus a quo of Vesalius and the terminus ad quem of the triumph of mechanics, the body might be thought of as the prize over which competing ways of organizing and understanding the world are struggling.

That struggle, of which the attempts by members of the early Royal Society in the 1660's to "purge" the language of observation of its figurative components, to produce a "strict account", might be taken as the evidence, does not result in the triumph of one method over another. Instead it achieves the separation of discourse with which we are now so familiar that it is only rarely questioned.<sup>4</sup> The contours of the scientifically understood body, appearing, for example, in the pages of The Lancet or the American Journal of Cardiology emerge in the closing

years of the seventeenth century. It is important to keep in mind the idea that this body is itself not necessarily dependent upon an increase in knowledge or technology alone. The scientific body may be as much a product of the available conceptual and linguistic tools, or even a network of metaphors and analogies, as it can be thought of as the stable site of scientific discovery. This view, derived from Kuhn's work on how so-called "scientific revolutions" might be thought of as being generated, lies at the heart of this thesis.

By stressing, in particular, the importance of metaphor in scientific writing, it will be observed how important poetic writing is to the over-all understanding of the body in the period. Most striking, to the modern reader, is the difficulty with which any Renaissance scientist felt either able or willing to contemplate the dead human body with what might be termed (in a modern sense) an objective eye. Indeed, in the period before Harvey (and, on occasions, even later) objectivity is a pose which the Renaissance anatomist would hardly have been able to recognise. So, the poet who celebrates the fragility or the mortality of the body, or who contemplates the irony of the body's eventual dissolution is not working at a distant remove from the anatomist who seeks to uncover the body's structure. In fact, it is possible to say that, in the period before the advent of "mechanism" there exists what might be termed a "poetics" of anatomy and anatomization. This poetics, or this awareness of the metaphorical possibilities of the dissection of the human frame, might be discerned in the ritual of the anatomy lesson, in the "Cabinet of Death" (Davenant's phrase) which is the anatomy theatre, and in the figures and allusions which lace the text-books from which the Renaissance physician learned, in part, his practice. At its most obvious, the poetics of anatomy



are glimpsed in the adaptation and quotation of The Faerie Queene in a chapter on the structure of the skeleton to be found in the anatomical text-book of Helkiah Crooke, physician to James I. More subtle, perhaps, but no less revealing for what it might tell us of anatomy as a cultural practice, is the self-conscious awareness of the resources of language displayed by anatomists in the 1640's, 1650's, and later. Here, it is possible to see how anatomy becomes part of larger social and political discourses at the very point when the Hobbesian belief in a neutral or objective language of investigation is emerging.

Considering anatomy as a cultural practice, it becomes apparent that the figure of the anatomist was endowed with a peculiar kind of status. The reasons for this are complex. It is possible to say, though, that in the sixteenth and seventeenth centuries anatomists figure as models or types of the "new science". They appear to hold a position in the public imagination akin to, say, that held by Darwin in the late nineteenth century and Einstein in the twentieth.<sup>5</sup> Why was this so? In part we might attribute the mythology which came to surround Vesalius and his followers to their positions as interpreters not just of bodies which have ceased to live but, because of the old correspondence between the microcosm and the macrocosm, of the very structure of the divine plan of creation. The anatomist, then, interprets not just the corpse on the dissection table, but through that corpse he begins to interpret the world itself. It is here that Donne's Anniversary poems might begin to be located - anatomies of creation which nevertheless seem to exist still within the confines of a Renaissance anatomy theatre.

But the status of the anatomist, in the seventeenth century in

England especially, is also connected with a form of national self-vindication. Here, Harvey and his discoveries are of special significance. Almost no other scientist of the period was so celebrated in poetry as Harvey. This wealth of poetic tribute is not simply a function of the undoubtedly revolutionary nature of his discoveries. Instead Harvey, a Royalist in politics, is taken up, after the Civil War, as the embodiment of supposedly supra-political scientific detachment. He represents a triumph of English science (though, ironically, he was trained in Padua) which can be linked, by, for example, Dryden, to the power of the British fleet and the ancient and Royal associations of Stonehenge. Significantly, one poet who was a contemporary of Harvey's who does not mention him is Milton, who prefers the continental (and perhaps more doctrinally appropriate) Galileo as his type of the enquiring scientist.

The anatomist as interpreter and the anatomist as a national hero, these are both means of explaining part of the extraordinary public encounter with anatomy. But, even when these two factors are born in mind, and if we also recall that anatomy is a visually engaging spectacle, we still have not fully understood the hold that this science exerted in the period.<sup>6</sup> The final factor that should be mentioned returns us to the body itself, and the ways in which the body was perceived. Strongest of all the possible influences upon the ways in which people saw and understood the body was the fact of death. The historian, Lawrence Stone, expresses this fact in the following way:

The most striking feature which distinguished the early modern family from that of today does not concern either marriage or birth; it was the constant presence of death. Death was at the centre of life, as the cemetery was at the centre of the village. Death was a normal occurrence in persons of all ages, and was not something that happened mainly to the old...The modern association of death with the aged bears no reality at any earlier period, when relatively few died at a ripe old age.

Anatomy, it need hardly be said, is concerned mainly with bodies that have ceased to live. But here we might discern a paradox. For, if Stone is correct, and death was indeed the omnipresent centre of all human activity, then it was also plainly not the case that individuals were in some way inured to death. The outpouring of sermons, poems, and meditations on death in the seventeenth century suggests that its presence in everyday life fosters a kind of fascination. It is here that anatomy, once more, begins to display a special form of significance. The anatomist not only practises upon once-living people, but he endows them with the power, briefly, if not to live again, then at least to command the attention of the living in a way (one supposes) that few of the anatomists' subjects were able when alive.

Thus, Donne's habitual stance, when he contemplates the anatomized body (a body which is, more often than not, his own) is to imagine it as both dead and living at the same time. It is, moreover, a body which commands attention, which exists at the centre of activity. Traherne, writing much later than Donne, was to complain that just such a significance had been destroyed by the anatomists, that the body had to be recaptured from the hands of the dissectors and made to signify in a way in which it once had.

Not only the poetic evidence remains, however. There is also the evidence of the anatomists themselves. Here, the illustrations of Vesalius and his contemporaries (contemporaries, too, of Donne and Traherne) are important. A number of these illustrations are reproduced in this study. Vesalius's illustrations, which first appeared in 1543, have become icons of Renaissance science, indeed of Renaissance culture in general: The Royal Shakespeare Company, for

example, used images from Vesalius' studies of the muscles to illustrate their programme to the Aldwych production of Coriolanus in 1977-8. Of these illustrations, one recent commentator has observed that they are:

... a sign that the heroic human subject of the anatomy has not been completely conquered. By the end of the "musclemen" series a skeleton is all that remains - yet the bones are poised to retain signs of human suffering. They function as memento mori rather than medical illustrations... As a result, the boundary between living and dead matter is significantly obscured.

8

Or, as a medical historian has put it, there is a refusal to make the modern medical "separation between morphology and function".<sup>9</sup> In the Renaissance anatomy theatre, in some way, the body lives on.

One final factor should be mentioned by way of preface to this study. In recent years, the work of Michel Foucault, in particular his Discipline and Punish: The Birth of the Prison (first published in 1975) has engendered a new interest in the body understood in relation to the general culture of the society in which it lives. Of self-evident interest to this study is the link which Foucault has made between the judicial punishment of the body and the notion of spectacle, of which the scaffold is the most telling example. Francis Barker's stimulating The Tremulous Private Body: Essays on Subjection (1984) comes closest to the concerns of what follows, and pursues further the links between the exploration of the human frame, as it is represented in art and literary texts, and the cultural understanding of the body at a particular historical moment - the mid to late seventeenth century. Similarly, Devon L. Hodges' Renaissance Fictions of Anatomy (1985) undertakes to examine cultural transformation revealed by anatomies in the Renaissance period. A rather different perspective (though one



which also acknowledges a debt to Foucault, whilst questioning many of his conclusions) is Bryan Turner's The Body and Society: Explorations in Social Theory (1984) - a wide-ranging sociological study of the network of cultural influences which, in the west, determine how we might perceive our own bodies. These recent works, together with others, have helped me to think about the body as something other than a naturally "given" object.<sup>10</sup>

Where the focus of this study is somewhat different, however, is in its insistence on the dissection of the body being, in the first instance, a medical undertaking. That is not to say that judicial elements of the anatomy, as investigated in particular by Barker, are unimportant. Thomas Nashe's unfulfilled anatomy of Jack Wilton in The Unfortunate Traveller, for example, clearly makes a connection between anatomy, punishment, and spectacle - the stress being laid on spectacle and punishment rather than investigation. But the term "anatomy" is not an inherently unspecific word, denotive of no more than an unusually rigorous analysis. Literary, theological, and scientific anatomies cannot be lumped together (as Hodges tends to do in his otherwise perceptive study) without first acknowledging that, in the sixteenth and seventeenth centuries "real" anatomies with a corpse, a battery of instruments, an anatomist, and an admiring audience also took place. It is true that, in the 1620's through to the late 1650's especially, all kinds of texts which contain the word "anatomy" in their titles were published - the most famous of which is Burton's encyclopaedic Anatomy of Melancholy (1621) which combines two key seventeenth-century concepts in its title. But anatomy, though it could and did signify a habit of mind, an intellectual process rather than the messy confrontation with a cadaver (a topic which is

investigated more fully in chapter two of this study), has its roots in a public confrontation. It is with this view in mind that I have undertaken to examine a part of the vast medical literature of the Renaissance period.

The awareness of this literature, designed, by and large, for the training of medical practitioners, but eagerly read by physician and prospective patient alike, provides, I would suggest, a rather different poetic context for reading both well-known and by and large ignored Renaissance texts. Donne's striking poses become, for example, not less striking, but perhaps more representative of the underlying assumptions of the culture in which he was writing. The same might be said of Traherne, or Cowley, or, from the earlier period, Spenser. At the same time the focus provided by this study has enabled me to read these "major" figures of the period in conjunction with a number of poets who, now, seem to be possessed by concerns which the modern reader can only with real difficulty share. The "anatomical epic" of Phineas Fletcher - The Purple Island (1633) - is all too easily dismissed, for example, as a literary curiosity. In this study I have devoted a chapter to what I believe is an important text of the period. Similarly, a number of poets and their work feature in this study who do not normally appear even in the specialized studies of literary historians. I have been able, for example, to uncover very little information concerning the prolific and once-popular John Davies of Hereford, often confused with his better-known namesake, Sir John Davies. Yet Davies of Hereford embarked upon a vast poetic "anatomization" which is a rich source for any cultural historian of the body. Some of the poets described here remain anonymously obscure - e.g. the mysterious "Ro. Un." whose only surviving text (and that in

only two extant copies, one in Los Angeles the other in Washington D.C.) can only be described as a "dream anatomy" - and it is probably unlikely that their obscurity will ever be penetrated. The same might be said of Peter Bowne, Nicholas Billingsley, John Hagthorpe, John Norden, and Henoch Clapham.

The point is not, however, to reinstate these shadowy authors, or even to make claims on their behalf as the "sources" for better-known texts. Rather, I have tried to keep in mind the two central ideas which the two texts which serve as epitaphs to this preface, and to this study as a whole, seem to me to express. These texts, both written by physicans who are also writers (or vice versa), and both of them written quite recently provide two different, but paradoxically compatible, ways of seeing the body. In the first it is a "hidden geography", an unknown region of discovery. In the second, however, it has become a subject of endless meditation and textual inscription. These two attitudes are linked through the notions of "fear", "awe", and "punishment" - all of which are themselves responses which the anatomists and poets of the sixteenth and seventeenth centuries seem to acknowledge.

Notes to the General Introduction

<sup>1</sup> Richard Selzer, Confessions of a Knife: Meditations on the Art of Surgery (London: Triad/Granada, 1982) p. 16.

<sup>2</sup> F. Gonzalez-Crussi, Notes of an Anatomist (London: Pan Books Ltd., 1986) p. 38.

<sup>3</sup> A. G. Debus, Man and Nature in the Renaissance (Cambridge: C.U.P., 1978) p. 59.

<sup>4</sup> Though the questioning has begun. See L. Jordanova (ed.), Languages of Nature: Critical Essays on Science and Literature (London: Free Association Books, 1986).

<sup>5</sup> See Gillian Beer, "Darwinian Myths" in her Darwin's Plots: Evolutionary Narrative in Darwin George Eliot and Nineteenth-Century Fiction (London: RKP, 1983). On the cultural significance of Einstein, see Roland Barthes, "The Brain of Einstein" in Mythologies (London: Granada, 1973).

<sup>6</sup> For an account of the iconography of anatomy, with reference in particular to Rembrandt's work, see: William S. Heckscher, Rembrandt's Anatomy of Dr Nicolaas Tulp: An Iconological Study (Washington Square: New York U.P., 1958).

<sup>7</sup> Lawrence Stone, The Family, Sex, and Marriage in England 1500-1800 (Harmondsworth, Penguin Books Ltd., 1982) p. 54-57.

<sup>8</sup> Devon L. Hodges, Renaissance Fictions of Anatomy (Amherst: U. of Massachusetts Press, 1985) p. 5.

<sup>9</sup> J. B. deC. M. Saunders & C. D. O'Malley, The Illustrations from the Works of Andreas Vesalius of Brussels (New York: Dover Publications Inc., 1973) p. 92.

<sup>10</sup> See also Susan Sontag's Illness as Metaphor (Harmondsworth: Penguin Books Ltd., 1983).



## PART I

Chapter One: "An Irksome and Cruel Thing" :  
The Study of Anatomy in England Before Harvey.

## Introduction

Writing in the early 1560's, Thomas Gale (1507-1587), one of the first Masters of the Barber-Surgeons Company, and a translator and commentator on Galen, attempted to provide a history of the development of medicine. Gale's history, in essence, is an ordering of myth. He emphasizes not the progress of medical discovery, but instead the unbroken chain of continuity which links each generation of physicians to its predecessor. The modern physician thus stands before the reader as both heir to and guardian of a body of medical lore. The origins of medicine are firmly placed within the realm of magic rather than science. In Gale's account the Egyptian God Thoth, better known to the Renaissance as Hermes Trismegistus, the supposed author of 36,000 volumes of esoteric knowledge, was the originator of medicine.<sup>1</sup> Hermes, says Gale, was "the first that found out the nature, properties, and qualities of hearbes, fruits, trees, rootes, mettals, stones, and many other things appertaining unto the arte of medicine".<sup>2</sup>

The knowledge gathered by this mythical figure, Gale continues, was passed to Chiron Sentauros, who had travelled from Greece to Egypt, and from whose name is derived the word "Chirurgia" or surgery. From Chiron the art of curing was passed to Apollo, and to Apollo's son Aesculepius, amongst whose talents was not only the healing of the sick, but the raising of the dead. Aesculepius, known as the founder of medicine as a human skill, taught his two sons Machaon and Podaleirus the secrets of medicine, and they became the physicians attached to the Greek army at the <sup>ie</sup>siege of Troy.<sup>3</sup> The disciples of these two "Sons of Aesculepius" spread throughout the world, and with them grew a variety of sects and opinions which flourished, says Gale,

until Hippocrates refuted the errors which prevailed, and first divided medicine into its different sections. That branch of medicine which came to be known as "Anatomy" (in Greek *ἀνατομία* a cutting up) thus emerges long after medicine as a curative art has its foundation.

Anatomy, as we shall see, was never really to shrug off the disadvantage of being a relative late-comer. In some sense, throughout the Renaissance, it was to remain the poor second cousin of "physick", distinguished by the fact that it possessed neither the mythical lineage, nor the social cachet of the older branches of the medical discipline.

As Gale's history of medicine is brought up to the modern age, a pattern begins to emerge. It is not that Gale ignores the writings of those medical authorities who flourished in the period between Galen, the "Prince of Physicians", and the moderns, but rather he sees them as adding nothing of any import to those principles which the ancients had first recorded. This does not mean that Gale regards the post-Galenic period as a time of ignorance. On the contrary, in faithfully transmitting the ancient texts down to his own age, his medieval predecessors have served Gale and his contemporaries well. Thus he praises the Arab writers of the early middle ages, and those who, in the ninth and tenth centuries, undertook the task of translating Galen into Arabic. Avicenna, whose work represented "the final codification of Graeco-Arabic medicine"<sup>4</sup> is recalled, as is Albucasis, the author of a treatise on surgery contained in his al-Tasrif which was translated and used extensively throughout the middle ages.<sup>5</sup> And in bringing to the reader's attention the names of Fallopius and Vesalius, Gale does not neglect to mention the earlier work of Lanfranc in the thirteenth century, and Henri de Mondeville and Mondino di Luzzi, the latter the

author, some time in the fourteenth century, of the first treatise on anatomy.<sup>6</sup>

The fame of these authorities, though, rests on their abilities as translators and recorders. There is, admittedly, a rather grudging recognition that they may have added a little to the sum of knowledge possessed by physicians, but that is not to detract from their ancestors:

All these which I have spoken of, of what countrie so ever they were, they tooke their originall and foundation, of our Father Hippocrates, and Galen, although they found out many things, appertaining to the arte of medicine, which we finde no mention made of, neither in Hippocrates, nor in Galen, yet they had their foundation from them, and all these men of what countrie so ever they were, they have drunk of the water that flowed out of their two wells...

7

Medical knowledge is thus a type of secret lore - a corpus mysterium - transmitted from one generation to the next. It is not for nothing that the Renaissance physician termed himself a "son" of Aesculepius, for medical knowledge was not considered to exist in the public domain. Instead it was handed down, a patrimony, from father to son.

Anatomy seems to stand outside this patrilineal line of descent. Though knowledge of the anatomy of the human frame had been cultivated for two thousand years, the actual science of anatomy was seen as a relatively young subject of enquiry. Its position within medicine was an uncertain one since it was a subject which so evidently relied not only upon the writings of the ancients, but on the experienced eye of the observer as well.

Thomas Gale's semi-mythical history of medicine is, in itself, an accurate register of the uncertain position which anatomy, taken as a distinct branch of medicine, enjoyed in England in the final quarter



of the sixteenth century. Though Gale's history stresses the sense of medicine as being an inherited body of knowledge, rather than a developing science, at the same time, in recording the achievements in human anatomy of his contemporaries, he is forced to recognise that the sum of medical knowledge is not fixed for all time. As a translator he is an heir to the humanist endeavours of Caius and Linacre, both of whom had sounded the "two wells" of Galen and Hippocrates. But in the 1560's, when Gale published his translations, the work of Vesalius and the continental anatomists had already thrown doubt upon the wisdom of accepting the received teachings of classical authority without question.

#### Anatomy in England

The purpose of this section is not to give a history of anatomical discovery. Instead, I should like to give a very brief account of the way in which anatomy as a subject was studied in the later part of the sixteenth century, and the earlier part of the seventeenth century. In particular, I am concerned with the organization of the institutions which were developed in England to aid the practice of anatomy.

An anatomist, to state the obvious, needs two things if he is to develop his skills. He needs a place in which to work, preferably a place where he can be watched by others, and he needs material - a corpse - to work with. At the beginning of the sixteenth century the English anatomist had neither. The provision of bodies, understandably, remained something of a problem until the passing of the Anatomy Act of 1832.<sup>8</sup> In 1549, the statutes of the University of Oxford laid down that medical students had to see two dissections in the course of their studies. No Readership at Oxford was established in anatomy, however, until 1624. At Cambridge, Caius College was

receiving two bodies each year for dissection as early as 1565. No Professorship in the subject was established, though, until 1707. The position was slightly better in Scotland. In 1505 the Guild of Surgeons and Barbers in Edinburgh was granted the body of an executed felon each year. This decision, by the city magistrates, was confirmed by James IV in the following year. In London the problem was initially one of competition between two rival organizations. The Barbers and the Surgeons (founded in 1308 and 1368 respectively) were not to end their rivalry until the Act of 1540 which united the two companies, and which provided for the supply of four corpses (again, the bodies of executed criminals being the source) each year. The Royal College of Physicians was founded in 1518. It was not until 1569 that the College was granted the right to dissect the bodies of executed criminals. Even with this provision, anatomical lectures at the College were by no means regular events.

With the exception of Edinburgh, then, anatomy demonstrations did not form a prominent part of the medical education of students in the British Isles until well into the later part of the sixteenth century. We can compare this situation to that which existed on the continent where dissections were conducted at Bologna from 1405, at Padua from 1429, at Montpellier from 1340, at Vienna from 1435, and at Tübingen from 1485.

If England lagged behind the rest of Europe in the provision of anatomical demonstrations, it also lagged behind in the provision of buildings in which such demonstrations could take place. The first printed description of an anatomy theatre is to be found in Alexander Benedetti's Anatomice sive historia corporis humani (Venice, 1528) written in 1493. Early anatomy theatres tended to be impermanent

structures, erected within the frame of an existing building as occasion demanded. It was not until 1594, at Padua, that the first permanent anatomy theatre was constructed. This, the theatre in which William Harvey saw demonstrations between 1600 and 1602, became the model for all subsequent theatres. The second anatomy theatre in Europe was the elaborate building at Leiden University, which was completed in 1597. In London anatomy lessons were given in the premises of the Royal College of Physicians in Knightrider Street. In 1614 the College moved to Amen Corner, and it was in this theatre that, in 1616, William Harvey was to give the Lumleian Lectures. The Barber-Surgeons held regular anatomy demonstrations from about 1577. These demonstrations took place in the Company's Hall in Monkwell Street, and it was not until 1637 that a proper anatomy theatre (designed by Inigo Jones) was completed.

At the end of the sixteenth century, however, the teaching of anatomy in England was undergoing a phase of rapid expansion. For example, the number of bodies granted to the College of Physicians in 1569 was no more than four. A Charter of James I increased the number to six. In 1641 an Act for enlargement of the privileges of the College increased the number of bodies to sixty.<sup>9</sup> Anatomy was, in some sense, the fashionable science of the day. Although it was still the case that many English students completed their medical studies abroad, either in Padua or in Leiden where there was ample provision made for the study of anatomy, it was becoming possible for a medical student to attend a regular course of anatomy demonstrations in London.<sup>10</sup>

Not only medical students attended the dissections which took place in London. In saying that anatomy was a "fashionable" science, I do not mean that it was only fashionable among the medical profession.

An anatomy theatre, in the late sixteenth century, was not only a place of instruction and education, it was also a place of entertainment. Anatomy lessons had about them something of the spectacle of the public stage. I shall develop this point further when we come to look at Donne's response to anatomy (see Ch.4), but it may be as well to think briefly about what actually took place in the Renaissance anatomy theatre.

### The Anatomy Lesson

Two early seventeenth century engravings have survived which show us what the interior of a renaissance anatomy theatre looked like, and also hint at the peculiar significance which came to be attached to anatomy in the public eye. The engravings show the interior of the anatomy theatre at Leiden University.<sup>11</sup> (See Figs. 1 & 2).

The Leiden anatomy theatre was largely the creation of one man - Peter Pauw, a commentator on Galen and Hippocrates, but also a practical anatomist of great distinction.<sup>12</sup> Pauw was appointed Professor of Anatomy at Leiden in 1589 and one of his first (and greatest) achievements was the construction of the Leiden Theatre. Hitherto, anatomy classes at Leiden were conducted in an old church, some parts of which were still consecrated. The new anatomy theatre was constructed inside the church, and this limiting factor largely determined the dimensions of the structure. The model for the Leiden theatre was the anatomy theatre at Padua, where Pauw had studied prior to taking up the Chair at Leiden. But the Leiden theatre was slightly larger than its precursor. Surrounding the dissecting area were six concentric rows of benches. The benches nearest the dissecting area were reserved for Professors and important guests. The three outer rows were reserved for members of the public and anyone interested in





Fig. 1. Interior of the Leiden anatomy theatre. Published by Jacob Marcus, 1609. Leiden University Library, shelf mark Port. 315-III. 19.



VERA ANATOMIÆ LUGDUNO-BATAVÆ CUM Sceletis ET RELIQVIS QVÆ IBI EXTANT DELINEATIO.

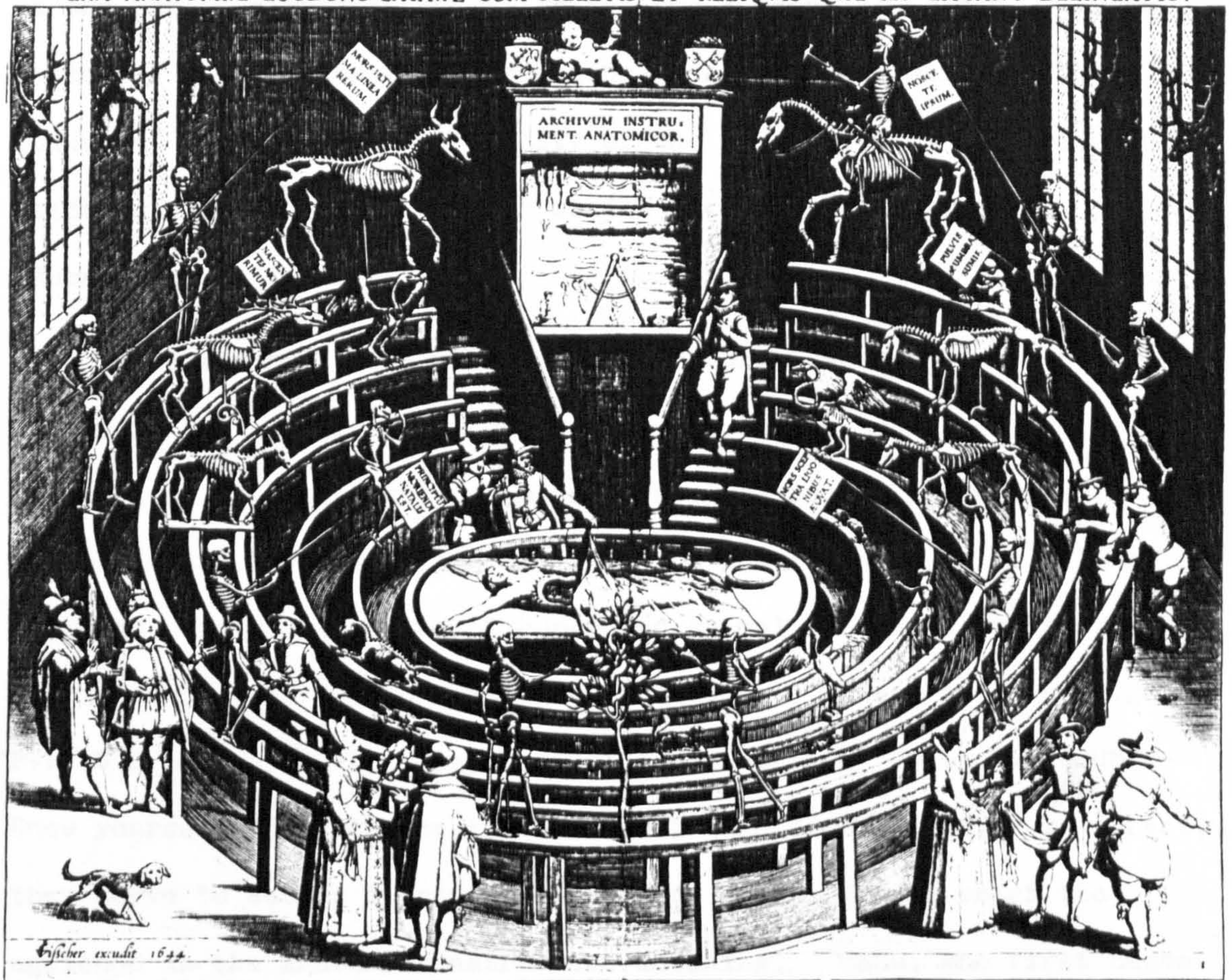


Fig. 2. Interior of the Leiden anatomy theatre. Published by Andries Clouk, 1610. Leiden University Library, shelf mark Port. 315-III. 20.



attending the demonstrations. Only the second and third rows were expressly reserved for medical students and those with a professional interest in the proceedings. These arrangements, in themselves, hint at the public significance of the anatomy lessons at Leiden. By no means was it the case that dissections were observed only by those connected with the medical faculty of the University. In fact, the Leiden dissections were as much social occasions as they were educational in intention.

The Theatre at Leiden was also much more than simply a convenient structure for bringing together corpse, anatomist, and audience. The theatre, as the illustrations make clear, was ornately decorated. Ranged around the dissection area, and on the interior walls of the building, was a collection of human and animal skeletons, some of them bearing appropriately moralizing instructions. These mottoes (e.g. "PVLVIS ET VMBRA SVMVS" - we are dust and shadows - "NOSCE TE IPSUM" - Know yourself) develop the theme of death and dissolution. In effect, they serve to act as a written commentary on the events which the audience in the anatomy theatre were watching. Pauw, who first began collecting skeletons for display in the theatre, was very much alive to the iconographical significance of the skeleton. His own published work on the human skeleton - De Humani Corporis Ossibus (Leiden, 1615) contained a frontispiece showing a group of skeletons dancing, an image which one commentator has attributed directly to the influence of the

13

"Danse Macabre" of Holbein. (See Fig. 3). The central image of the theatre was a montage of two skeletons between whom is placed a tree around which is curled a serpent. One skeleton is placed in the attitude of offering an apple to the other. Adam and Eve, then, representing an image not only of the Fall and human frailty, but of the origins of death itself.





Fig. 3. Detail from the title-page of Peter Pauw, De Humani Corporis Ossibus (Leiden, 1615). B. L. copy 548. C. 7.



The anatomy theatre at Leiden, it seems, was much more than simply a place in which to teach the facts of anatomy. It was, in its very construction and decoration, an architectural lesson in human mortality. In the words of Lunsingh Scheurleer, the theatre:

offrait la possibilité d'apprendre à mourir, à se connaître soi-même et à connaître l'insécurité de l'existence, tout en étant dédié à Hygie, déesse de la santé...

14

And at least one English poet, Sir William Davenant, understood the symbolic potential of the decorations in the Leiden anatomy theatre when he used it as the model for his "Cabinet of Death" in Gondibert (1651):

This dismall Gall'ry, lofty, long, and wide;  
Was hung with Skelitons of ev'ry kinde;  
Humane, and all that learned human pride  
Thinks made t'obey Man's high immortal Minde.

15

Whilst the Leiden theatre was, undoubtedly, an extravagant realization of Renaissance attitudes towards anatomy, the habit of mind that it expresses was by no means unique. Looking, once more, at the 1609 illustration of the Leiden theatre, we can see the anatomist, surrounded by his audience, placed behind the cadaver with his right hand gesturing towards an opened text book. This pose may suggest the attitude of a priest conducting the mass, and it certainly indicates a highly ritualized sense of the anatomy lesson as an occasion. It should be no surprise, then, to learn that at Leiden, whilst dissections were being conducted, flute players entertained the audience,<sup>16</sup> or to read of the elaborate public rituals which accompanied dissections at Bologna, where a new anatomy theatre was built in 1649.<sup>17</sup>

The rituals surrounding dissections in England, if they were not

as elaborate as those at Leiden, were by no means entirely absent. The Barber-Surgeons, at their premises in Monkwell Street, conducted both private and public anatomies. A complete dissection would normally last for three days, with the anatomist beginning with those areas of the body subject to the most rapid decay (the lower abdomen), before moving on to the thoracic cavity, the head, and finally, if there was time, the limbs. Time and decay, in fact, were the determining factors in the course of the dissection, as William Harvey's "General Rules For an Anatomy" which accompanied his notes to the Lumleian Lectures which he gave in 1616 make clear.<sup>18</sup> The distinction between a "private" anatomy and a "public" anatomy is a somewhat vague one. In a sense, all anatomies were, in their nature, "public". The Barber Surgeons attached strict penalties to the conduct of "private" anatomies anywhere other than in their own premises, and they also ensured that at least one anatomy each year was "public" to the extent that members of the general public were admitted, on payment of an entrance fee, as well as invited guests.<sup>19</sup> After the dissection had been concluded, there was usually a banquet, an institution which Samuel Pepys records in his description of a dissection he attended in 1662.<sup>20</sup>

These, then, are the circumstances which surrounded a Renaissance anatomy class. For our purposes, the most important single point to keep in mind is the fact that dissections, in this period, were not simply utilitarian occasions. Instead, they were public, almost dramatic, performances, with music and ritual. The lessons which the audience took away with them were not confined to matters of physiology. If the Leiden anatomy Theatre is any guide (and we should remember that, prior to the emergence of London as a centre

for medical study under the influence and example of Harvey, the protestant University of Leiden was the training-ground for many English doctors and surgeons)<sup>21</sup> then the conduct of an anatomy lesson in the late sixteenth century was itself a lesson in matters which bounded upon the theological as much as the medical.

### Anatomical Books in England Before Harvey

Before the publication of Harvey's De Motu Cordis in 1628, English anatomists contributed very little that was either new or original to the understanding of the subject. This, of course, does not mean that there were no English anatomical text-books, or that English anatomists never published. Instead, the majority of anatomical works represented either translations from Europe and the Classical writers, or compendia - syntheses of the work of continental anatomists.

Nevertheless, there was a considerable demand for text books, a demand which was created by the increasing awareness amongst the medical profession of the necessity of anatomical study of the human frame. This demand was met in a variety of ways. Initially, it was simply a question of providing accurate texts of the classical authors. Thus, between 1517 and 1524 Thomas Linacre published six Latin translations of Galenic texts, and in the 1540's John Caius was responsible for a further three full-scale Galenic works being published, as well as a composite edition of six Galenic treatises.<sup>22</sup> The most important anatomical Galenic text was published in a Latin edition of 1531, by Johannes Guinther of Andernach, an anatomist and the teacher of Vesalius.<sup>23</sup>

If the first step for English medical humanists was editorial, the next step was the translation of these works into English. Here we encounter the outlines of a controversy which raged throughout the sixteenth century, and lasted well into the seventeenth. To what extent was it either permissible or advisable to publish medical works in English? Might it not erode the privileges of the physician to make medical knowledge widely available in the vernacular? So, although Thomas Vicary's A Profitable Treatise Upon The Anatomy of Mans Bodie appeared in 1548, and was followed by a number of works in English,<sup>24</sup> it was still possible for a translator as late as 1634 to feel it necessary to defend himself for publishing in English:

There are some (I knowe) will blame me for Englishing this worke, as laying open the mysteries of a worthy art to the unworthy view of the vulgar. To such I could answer as Aristotle did to Alexander, but for the present I will give them these which I thinke may satisfie any but the purposely malicious. The first is drawne from the goodnesse of the thing as intended for those that want such guides to direct them in their art... Secondly, that it hath beene the custome of most writers in all ages and countries thus to doe: Hippocrates, Galen, and the other Greekes writ in their mother tongue the mysteries of their art: thus did Celsus, Serenus and others in Latine...

25

Such a defence would not have been out of place a hundred or so years earlier. Certainly, similar defences appeared in the prefaces to numerous sixteenth century anatomical works.<sup>26</sup>

In a sense, the debate had already been decided by the time Thomas Johnson wrote the defence which I quote above, and the grounds for that decision were rather more pragmatic than the reasons advanced by Johnson appear to be. In 1615 Helkiah Crooke published his Microcosmographia. Crooke's work is a synthetic piece, drawing



largely on the observations of continental anatomists such as Caspar Bauhin, Peter Pauw, and, of course, Andreas Vesalius. Though it was not published until 1615, parts of the work were in circulation in November of the previous year, when John King, Bishop of London, was reported to have been affronted by passages from Books 4 and 5 of Crooke's work. The offending passages dealt with (predictably) "the parts belonging to generation". The President of the Royal College of Physicians intervened, condemned the volume, and informed Crooke's printer, William Jaggard, that if the work appeared without alteration, it would be destroyed.<sup>27</sup>

In fact, Crooke's work appeared without any amendment in 1615, and soon proved to be a popular text-book on anatomy.<sup>28</sup> This brief skirmish conceals a more important principle. The decision to publish an anatomical text book in English was itself indicative of the expected degree of education on the part of those who would have found the book to be of most use - apprentice surgeons. By and large it was the physicians, rather than the surgeons, who were opposed to works appearing in English.<sup>29</sup> Setting aside popular medical works such as Thomas Elyot's Castel of Healthe (1539, with fifteen editions by 1610), the majority of medical books published in English in the late sixteenth century were to do with surgery or anatomy rather than "physick". The reason for this was that the Barber-Surgeons were not expected to possess the educational background that it was assumed that members of the College of Physicians would have. So, Thomas Gale, in offering a translation of Galen, argued that it was for the benefit of those students "which have not beene trained up in schooles, neither yet can understand the Greek or Latine tongue", before going on to stress the conventional argument, that Galen and Hippocrates also

wrote in their native tongue.<sup>30</sup> William Harvey, of course, was an exception. Harvey did not publish his work on the circulation of the blood in English until some twenty years after it had appeared in Latin. The trend, though, throughout the period, is for English to supplant Latin as the medium for anatomical works.

Armed with this information about the Renaissance study of anatomy in England: the building of anatomy theatres, the institution of anatomy lectures, and the state of publication of anatomical works, we can begin to construct some sort of image of the status of anatomy and anatomists in the period. Anatomy, is the new science of the late sixteenth century, as the increasing provision which was being made for its introduction into the medical curriculum makes clear. But novelty was not its only attribute. Anatomy seems to have stood outside that enclosed, and linear, descent which Thomas Gale mapped out for medicine. Not only was it a new science, but it was a public science, and, to some extent, it was a fashionable discipline. Its practitioners went to considerable pains to make themselves understood not just by their medical peers, but by an audience whose knowledge and study of the great body of classical medical texts could by no means be taken for granted. Beyond all this, we should keep in mind the moral claims of the anatomists. Anatomy was seen not simply as a means of widening or deepening understanding of the facts of physiology, but as a lesson in human frailty, in God's creational power, and in the inevitable fate of all men and women. Perhaps these larger claims which the anatomists made on behalf of their subject can be dismissed as an expected piece of exaggeration on the part of those who were anxious to achieve a measure of the social and professional respect which was accorded to their cousins in the medical field at large. Even if this



was the case, the fact still remains that the public domain in which anatomy was studied and practised indicates that to be much possessed by death and to see the skull beneath the skin, was an endeavour which caught the imaginations of those who might otherwise have had little professional interest in the subject.

### Correspondence

...in the sixteenth century, the fundamental supposition was that of a total system of correspondence...and each particular similitude was then lodged within this overall relation...the interplay of similitudes was...infinite: it was always possible to discover new ones, and the only limitation came from the fundamental ordering of things, from the finitude of a world held firmly between the microcosm and the macrocosm.

31

Michel Foucault's analysis of what he terms "the hierarchy of analogies" in Renaissance thought is, in essence, no more than a re-statement of a commonplace familiar to historians of ideas.<sup>32</sup> That commonplace, which informed not only poetry but also scientific writing of the age, was succinctly phrased by Sir Thomas Browne (who, incidentally, had studied anatomy at Leiden) in his Religio Medici (1642):

"That we are the breath and similitude of God, it is indisputable, and upon record of holy scripture; but to call ourselves a microcosm, or little world, I thought it only a pleasant trope of Rhetoricke, till my nearer judgement and second thoughts told me there was a real truth therein".

33

In the case of anatomical texts, there was no question but that the anatomists perceived the "real truth" of the doctrine of correspondence. The doctrine of correspondence was essentially concerned with the unity of creation. Man, as part of the creation, stands in an analogical relationship to all things contained within the world:

"With everything created by God" wrote Thomas Rogers in 1576, "he hath some affinitie".<sup>34</sup> The anatomist, in the act of separating the human body into its constituent members, seemed to be tracing this sense of affinity to its roots. He thus becomes the interpreter of both the human body and (through the analogous relation of body and world) the frame of creation itself:

Man, for whose cause the Eternall created the goodly and beautiful frame of the world: and in whose Bodie, whatsoever is more largely in that spacious, and gorgeous Pallace and Theatre delineated, is more briefly comprised, and as it were epitomiz'd and represented a short summe or view.

35

The anatomist who 'reads' the body of man, then, is also reading the book of creation itself, or at least a condensed version of it. And if man is "the small counterfeit of the Great God", then the anatomist who is given insight into the frame of man is also studying traces of the Divine which linger in man.

Correspondence is not only a means of ordering what is seen in nature, it can also determine what is seen. This process applies both to the physician and to the anatomist. It is correspondence, used not as a means of ordering experience through metaphor but as, in Browne's words, "a real truth", which, in 1597, informs the view of the body held by Peter Lowe, founder of the Faculty of Physicians and Surgeons of Glasgow.

Lowe was to assert that the most important area of the body is the head:

...we may iustly thinke, like as the heavens are the firste principall, whereupon depend all the generations, and alterations elementaries, even so in the head is the first principall of all the actions and motions of our body.

36



Here, it is not that correspondence functions as, in Hobbes's words on metaphor, an "apt similitude", but rather it helps to determine how the anatomist orders the opened body.

This linking of the human body and the wider world in the explorations of the anatomists soon became, in itself, a justification for the study of anatomy. We can begin, I think, to see why the Renaissance anatomy demonstration took on an almost ritualistic air. It is not just that the opened body acts as a memento mori, but it is also an illustration of the framing of elements which are to be found in the external universe. To open the body before an audience, once the reality of correspondence is given, is to open the world as well.

The finest statement, on the part of an anatomist, of the principle of correspondence is to be found in Helkiah Crooke's controversial publication. Crooke not only re-states the old micro-cosmic belief, and traces its relevance to anatomy, but he erects a complete justification of anatomy as the foremost scientific discipline of the age. More than that, anatomy also becomes the gateway to theology and to philosophy. The whole, complex, edifice is itself based on the words of the Delphic oracle to Apollo, which are repeated in the decoration of the anatomy theatre at Leiden - Know Yourself:

Whosoever doth well know himself, knoweth all things,  
seeing in himself he hath the resemblances and  
representations of all things. First he shall know God,  
because he is fashioned and framed according to his  
image, by reason whereof, hee is called among the Divines,  
the Royall and Imperiall Temple of God; he shall know  
also the Angels, because he hath understanding as they  
have; he shall know the brute beasts, because he hath  
the faculties of sence and appetite common with them.

37

Such exhortations resound throughout Crooke's work. In fact the opening sections of Microcosmographia clearly set out the enormous

claims which anatomists felt could be entertained on behalf of their subject. So, Chapter VI of Book I is entitled "How Profitable and Helpful Anatomy is to the Knowledge of God", and the following chapter sets out to demonstrate "How Profitable Anatomy is to Philosophy, and in a manner to all Artificers and Handy-Crafts men". And as though anxious to ensure that nothing is left out, Crooke adds an afterword to this Chapter: "There are also other benefits and commodities of Anatomy proper and peculiar to poets and painters... to teach them the better to bring their Artes to perfection". (Crooke, P.15).

In order to substantiate these universal claims, Crooke is led into an attempt to define what constitutes anatomy. Interestingly he distinguishes two separate approaches to the subject. The first we might term 'applied' anatomy, the second Crooke himself terms theoretical anatomy:

"...either it signifieth the action that is done with the hand, or the habit of minde, that is the most perfect action of the intellect. The first is called practical Anatomy, the latter theorical (sic) or contemplative, the first is gained by experience, the second by reason and discourse." (Crooke, P.26)

It is not difficult to see how this second type of anatomy - "the most perfect action of the intellect" - could be applied to matters whose scope normally lay outside the confines of the anatomy theatre. Theoretical anatomy, Crooke argues, examines the "cause of the structure and the actions and uses therefrom proceeding", and from this widely applicable definition he moves forward to offer a second definition of this process:

It is defined a science or Art which searcheth out the nature of every part, and the causes of the same nature. I call it a science, because it hath Vniversal or general theorems or maxims, and common notions out of which, being the first, true, immediate, and best known, all demonstrations are framed. (Crooke, P.27)



Armed with this definition of his undertaking, the anatomist might indeed feel himself justified in claiming for his subject a universal application.

### The Uses of Anatomy

Judging by the number of times the word "anatomy" appears on the title-pages of works published in the late sixteenth and early seventeenth century, it would seem safe to conclude that the anatomist's art had not only been assimilated by a wider public than those directly concerned with medicine, but that it had given rise to a whole genre of writing which was only indirectly aware of the medical origins of the word. But a degree of caution is warranted. It is obviously the case that a number of anatomies were published in the period which adopted the medical term in a very loose sense indeed. The fact that these works tended to be satirical has given rise to the view that "anatomy" (used in the literary or non-medical sense) is virtually synonymous with satire.

The case for firmly linking satire with anatomy is ably put by T.J.Arthur. Arthur suggests that:

By the time that John Day wrote the Isle of Gulls in the third decade of the seventeenth century, the idea of anatomy in literary contexts had been virtually limited to the flaying and dissection incident to the lash of satire.

38

And this, of course, held good not only for the anatomy metaphor, but for the surgical one as well. In fact, the two - anatomy and surgery - are closely related. Both could (and did) become a lively metaphor for the satirist's art, though there is a more final quality about the satirist who poses as an anatomist, dissecting a dead organism, than one who performs surgery in the hope, one presumes, of effecting a

cure on a living object.<sup>39</sup>

With reference to Arthur's identification of the genre of satirical anatomies, the earliest literary anatomy is, indeed, a satirical work - Agostino Mainardo's Anatomia della Messa, an anti-catholic attack published in 1553. Mainardo's publication sets the tone for many subsequent anatomies which were, in the main, protestant tirades against catholicism. Works such as Thomas Bell's Anatomy of Popish Tyranny (London, 1603), the anonymous Abuses of the Roman Church Anatomized (London, 1623), George Lauder's Anatomy of the Roman Clergy (London, 1623), and Thomas Robinson's The Anatomy of the English Nunnery at Lisbon (London, 1622) all fall into the category of the satirical anatomy. Similarly, O. A.'s Anatomie of Protestancie, published in 1623, is a further example of the genre, though this time written from the opposite standpoint - a catholic anatomy attacking protestantism.

These satirical anatomies employ the word "anatomy", and the idea of "anatomizing" in a highly charged fashion. There is the sense, already mentioned, of an anatomy being an operation performed upon an object (or, here, an institution) which is itself already dead. In this sense the anatomy serves to disarm or diminish the object of the satirist's scorn. At the heart of the metaphor, of course, is the notion of cutting up. But in the satirical anatomy the anatomist does not dissect in order to learn something of the structure of the object he is examining. Further, he hopes actually to reduce it in size and potency through the very act of performing the dissection. The Roman Clergy, for instance, once anatomized by the protestant dissector, are to be supposed scattered, or cut apart from one another. This reductive impulse within the anatomizing performance is one which is



quite distinct from the non-satirical use of the word anatomy. It is, though, a signification of which satirists and those with the intention of executing attacks upon a particular abuse or object of suspicion were very much aware. The OED, for example, defines anatomy with the help of a citation from Foxe's Book of Martyrs (1563): "Thus was the Masse anatomized, with the abominations thereof." For "Anatomized" here we might read "dismissed" or, more powerfully, "torn apart". The intention is not to examine the structure in order to learn more about what is being dealt with, but to render it harmless.

But "anatomy" could also possess a much more neutral or passive signification. If we take anatomy in its medically allied sense to mean no more than a careful or strict analysis of the whole through a particular examination of the constituent parts, then the picture of literary anatomies forming part of a satirical genre needs some qualification. We might recall, here, Helkiah Crooke's distinction between the practical anatomy, or the cutting up, and the theoretical anatomy which is, in Crooke's own words "a habit of the minde". So, whilst Philip Stubbes's puritan Anatomy of Abuses (London, 1583) and the rejoinder to Stubbes written by Thomas Nashe and published as The Anatomie of Absurditie (1589) may both be termed satirical anatomizations, and whilst the anonymous misogynist who wrote A Briefe Anatomie of Women (London, 1653) had both satire and salaciousness in mind, the non-medical anatomy was by no means exclusively satirical. There is nothing satirical about Thomas Rogers's Anatomy of the Minde (London, 1576), nor is George Strode's The Anatomie of Mortalitie (London, 1618) a satire. The same can be said of John Woolton's religious work A New Anatomie of Whole Man (London, 1576), Robert Prickett's Times Anatomie (London, 1606), John More's A Livelie Anatomie of Death (London, 1596), and the anonymous The Anathomie of

Sinne (London, 1603). In all these works the anatomizing element in the writing is introduced not to a satirical end, but instead to suggest an intellectual mode of analysis which employs the anatomist's skills in order to discover more, rather than to simply destroy through dismemberment. This, the neutral sense of anatomy, is one which has the medical use of the word firmly in mind, and which forces a qualification to be appended to Arthur's assertion that:

It is immediately after Lyly's Euphues that the literary anatomy begins to develop characteristics less dependent upon the medical base of the metaphor than upon attitudes to the literature which employed that metaphor. (Arthur, P.156)

Such a reading of the literary anatomies which were written in the late sixteenth and seventeenth centuries is itself dependent upon the reader's choice of anatomies. The most famous anatomy of all, Burton's Anatomy of Melancholy (first published in 1621) is a literary anatomy, with satirical elements, but one that nevertheless has the medical sense of anatomy very much to the fore. And as late as 1642 an anatomy was published - R. W.'s The Anatomy of Warre - in which the anatomy is devoted entirely to analysis rather than satirical destruction.

Moving away from the whole question of satirical anatomies, it soon becomes clear that many of the non-medical "anatomies" which were written in the late sixteenth and early seventeenth centuries were very much aware of the medical basis of the metaphor they are engaged in developing. So much so, in fact, that the enormous claims which were made on behalf of the study of anatomy as a gateway to knowledge seemed to have found a response in non-medical writers. "He which thoroughly would know himself" Thomas Rogers wrote "must aswell knowe his bodie as his minde. The bodie to put him in mind of his slaverie: the mind of his sovereigntie" (Rogers, Sig.A3).



In 1576 John Woolton, later Bishop of Exeter, published two works which, taken together, constitute an analysis of the christian doctrine of faith and salvation. In Of the Immortalitie of the Soul Woolton sets out to examine the tainted soul of man, disfigured by its original fall. In A Newe Anatomie of Whole Man the process is taken to its conclusion with a discussion of the regeneration and glorification of man. The preface to Of the Immortalitie of the Soul is interesting in that it suggests a theological justification for the spiritual claims of anatomists. Woolton writes:

And therefore some of the philosophers termed man with good cause Microcosmos, that is to say a little world, being an especiall token of Gods power, goodnesse and wisdom, and having in himselfe store of miracles and wonders, to occupie our mindes, if we will vouchsafe to geeve the looking on: In consideration whereof the Apostle St Paule affirmeth that God may be felt and handled in some sort, even of those that are blinde, because every one of us may have a lively taste of the grace of God, whereby we move, live, and have our being: 40

If man can be considered as containing within himself a "store of miracles and wonders", then the anatomist who opens the body can be thought of as partaking in the spiritual exploration recommended by Woolton himself when he goes on to point out that both Salust and Galen "affirmeth that the knowledge of anatomie and structure of the body is a meane or guide to bring us to the knowledge of God".<sup>41</sup> It is not just that the anatomist contributes knowledge to an understanding of the creational power of God, but that he discovers a special area of God's power because he deals with a structure which, in Herring's words, is "the small counterfeit of the Great God".

To argue that man is the "counterfeit" of God is, as Woolton realises in his companion publication A Newe Anatomie of Whole Man, to run into the danger of heresy, specifically the Anthropomorphite Heresy.

The Anthropomorphites flourished in the fourth century under the guidance of Audius, a Mesopotamian.<sup>42</sup> The Anthropomorphites, as their name suggests, believed that the words of Genesis dealing with the creation of man ("God created man in his own image") should be understood literally, so that God can be thought of as possessing eyes, ears, and all the members of a physical body. Woolton's sense of approaching heresy when stressing the importance of this passage of the scriptures is clear, but, searching for a via media, he eventually manages to cloud the issue sufficiently to allow for a variety of interpretations: "...as those doo offende in excesse, that ascribe this image of God to mans body only: so doo they also erre in defect, that place it onely in the minde".<sup>43</sup>

But the Newe Anatomie is much more than a controversialist work. For our purposes, the "anatomy" of its title signifies an anatomy, or analysis, of the christian faith. So the work moves through five distinct divisions - the state of pre-lapsarian man, the effects of the fall, an examination of what is left of pre-lapsarian man in his post-lapsarian state, regeneration through Christ, and man's eventual glorification at the resurrection. Within Woolton's division of Christian doctrine, anatomy performs a dual function. On a literal level it is suggestive of the process of analysis and particularization. But the information uncovered within the anatomy theatre also has its place within Woolton's scheme, and that place is one which might be termed spiritual rather than simply physiological. "As Galen divinely writeth" Woolton asserts, "anatomy deduceth the creature to some knowledge of his creator".<sup>44</sup>

Many of the non-medical anatomies which were written in the early seventeenth century echo Woolton's affirmation of the theological



dimension of the subject. In William Hill's The Infancie of the Soul (London, 1605), medical evidence drawn from the anatomy theatre is offered as a means by which to establish proof of the soul's existence.<sup>45</sup> Such methods of reasoning suggest that, for a theological writer such as Hill, the spiritual and the physical lie in easy proximity to one another in the body of man. In the anonymous Anathomie of Sinne knowledge of the body is also seen as an important factor in arguing the case for spiritual concerns. Here, the importance of the body is underlined in the author's exhortation to the reader to study the Book of Nature, visible in all creatures, but especially in man.<sup>46</sup> When George Strode's Anatomie of Mortalitie appeared in 1618, the reader was confronted with an eight-part meditation upon death in which knowledge of the human body is discussed in the first section ("The Certaintie of Death"). Such knowledge, it is argued, is a necessary preparative to a meditation on death whether it is "death (which is naturall) of the bodie" which is under consideration or "spiritual death of the soule in sinne".<sup>47</sup>

A rather later example of the uses to which anatomy could be put in the period is provided by the work of John Weemes (or Wemyss), the prebendary of Durham in the early 1630's. A chapter of Weemes's A Portraiture of the Image of God in Man (London, 1627) is devoted to a consideration of the human body. When carefully surveyed, Weemes suggests, the body can reveal much of the fundamentally sinful nature of fallen man. It can also provide a guide to the character of the individual:

The Anathomists marke when the heart inclineth more to the right side; the spirits of these men are more lively, and are more apt for contemplation.

Anatomical evidence can also illustrate God's care in creating his creature. So, Weemes describes the liver "inclosed by a net called Reticulum", from which:

...it is to be marked that God hath fenced his noblest parts, as the braine, with the Pia Mater, and Dura Mater, the heart with Pericardia, and the liver with Reticulum. (Workes, P.23)

Observations such as these suggest that the anatomist and the divine shared a common language. Certainly, the intellectual project of the anatomist, his vocabulary, and his discoveries could readily be given a religious interpretation by the theologian. Presumably it was the attention which anatomy attracted from these quarters which encouraged anatomists such as Crooke to make the claims on its behalf which are to be found in anatomical texts. A writer such as Thomas Newton, rector of Little Ilford in the 1580's and a physician, could draw upon his memories of the anatomy theatre without any sense of them being inappropriate in describing one of his theological works in the following terms:

For herein are there briefly, plainely, familiarly, and methodicallye, laide open, ripped up, displayed, anathomized and unfolded (in effect) all the secret corners and starting hoales of the inward man.

49

### Conclusion

In 1569 Cornelius Agrippa's vigorously anti-rationalistic work Of the Vanite and Uncertaintie of Artes and Sciences was translated and published in English. Perhaps it is some measure of the growing status of anatomical study to record that Agrippa reserves some of his most extravagant language for a denunciation of the pretensions of the anatomists. Anatomy is, he maintains, a science of "cruel torments" conducted by "an open bocherie of physitions and surgeauns". Yet, in the full flood of his attack, Agrippa also manages to convey some sense



of the intellectual excitement of the curiosity of anatomists who:

...cut open the liveless bodye, and tearing asunder  
mans bodye doo searche, and consider the placing,  
order, measure, work, nature, and secrets of every  
member, to learne thereby how and in what places  
they should cure with this cruell diligence nolesse  
wicked, and abhominable spectacle.

50

In fact, the diligent exploration of the anatomists of the period seems to have been a spectacle which aroused the imagination rather than the disgust of those who witnessed the events which took place in the anatomy theatre. At the close of the sixteenth century anatomy, in England, was a rapidly growing discipline, which attracted the attention of a much wider public than those who might have been counted as having a professional interest in its discoveries. The public nature of the subject, the dramatic spectacle of dissections, the rituals with which those dissections were associated, and the moral lessons which it attempted to illustrate, all these factors help to explain how this new science was to become a fertile source of images and metaphors for imaginative writers. Before investigating this topic, however, it remains to enquire rather more closely into the methods of thought which the anatomists developed, and to relate those methods to the wider debate on methodology in scientific reasoning which became of growing importance in the seventeenth century.

## Notes

1

See Lynn Thorndyke, The Place of Magic in the Intellectual History of Europe (New York: Columbia U. P., 1905) p. 85. See also Keith Thomas, Religion and the Decline of Magic (Harmondsworth: Peregrine Books, rpt. 1980) pp. 266-7.

2

Thomas Gale, Certaine Workes of Galens Called Methodus Medendi, (London, 1586) sig. A2.

3

Robert Graves, The Greek Myths, 2 vols. (Harmondsworth: Penguin Books, 1955, rpt. 1962). I. pp. 174-5.

4.

C. H. Talbot, Medicine in Medieval England, (London: Oldbourne, 1967) P. 31.

5

For information on pre-Tudor medicine, see: A. C. Crombie, Augustine to Galileo: The History of Science AD 400 - AD 1650, 2 vols. (London: Heinemann, 1961); Antonia Mclean, Humanism and the Rise of Science in Tudor England (London: Heinemann, 1972); C. D. O'Malley, English Medical Humanists, (Kansas: Kansas U. P., 1965); Charles Singer, A Short History of Anatomical and Physiological Discovery to Harvey, (London: Kegan Paul and Co., 1925); Marie Boas, The Scientific Renaissance (London: Fontana, rpt., 1970).

6

Mclean, p. 177.

7

Gale, Certaine Workes, sig. A6<sup>V</sup>.

8

In addition to the works cited above (note 5) see: Sir George Clark, A History of the Royal College of Physicians, (Oxford: Clarendon Press, 1964); Sidney Young, Annals of the Barber-Surgeons of London, (London, 1890); A. G. Debus (ed.), Medicine in Seventeenth Century England (Berkeley and Los Angeles: U. California P., 1974); Phyllis Allen, "Medical Education in Seventeenth-century England," JHM 1 (1946) pp. 115-143; W. Brockbank, "Old Anatomical Theatres and What Took Place Therein," MH 12 (1968) pp. 371-384; A. Chaplin, "A History of Medical Education in the Universities of Oxford and Cambridge", Proceedings of the Royal Society of Medicine 13 (1920) pp. 83-107; W. S. Copeman, "The Evolution of Anatomy and Surgery under the Tudors," Annals of the Royal College of the Surgeons of England 32 (1964) pp 1-21; K. F. Russell, "Anatomy and the Barber Surgeons," Medical Journal of Australia 1 (1973) pp. 1109-1115.



9

Sir Geoffrey Keynes, The Life of William Harvey (Oxford: Clarendon Press, 1978) p. 86.

10

Harvey, for example, studied at Padua between 1600 and 1602. He also visited Leiden in the course of his continental journey of 1636. Helkiah Crooke studied at Leiden after leaving Cambridge c. 1596. See Keynes, Life of Harvey, pp. 22-34; C. D. O'Malley, "Helkiah Crooke M. D., F. R. C. P. (1576-1648)," BHM 42 (1968) pp. 1 - 18.

11

I am grateful to Dr. D. de Vries, curator of the map collection, Leiden University Library, for allowing these illustrations to be reproduced here.

12

Th. H. Lunsingh Scheurleer, "Un Amphithéâtre D'Anatomie Moralisée," in Th. H. Lunsingh Scheurleer and G. H. M. Posthumus Meyjes (eds.), Leiden University in the Seventeenth Century: An Exchange of Learning (Leiden: Leiden U. P., 1975) p. 217.

13

Scheurleer, p. 223.

14

Scheurleer, p. 222.

15

Sir William Davenant, Condibert, ed. David F. Gladish (Oxford: Clarendon Press, 1971) p. 151. See also, Jonathan Sawday, "The Leiden Anatomy Theatre as a Source for the 'Cabinet of Death' in Condibert," NQ 30 (1983) pp. 437-9.

16

Brockbank, p. 375.

17

Brockbank, p. 379.

18

"Too eager an enquiry is not suitable in the dissection of each member, and the time does not allow it" (Quoted by Keynes, Life of Harvey, p. 91).

19

Copeman, p. 7.

20

See Henry B. Wheatley (ed.), The Diary of Samuel Pepys 8 vols. (London: George Bell and Sons Ltd., 1938) III. pp. 50-51.

21

See R. W. I. Smith, English Speaking Students of Medicine at the University of Leyden, (Edinburgh and London: Oliver and Boyd, 1932).

22

For further information on the translations of Linacre and Caius, see: Mclean, p.183; Boas, pp. 124-6.

23

This text was Galen's De anatomicis administrationibus. Guinther's Latin ed. of 1531 was followed by a Greek version of 1538. Caius was also to publish an ed. of the work at Basel at 1549. Boas (p. 126) marks the publication of Guinther's 1531 text as the point when "the real worship of Galen begins."

24

See: C. F. Mayer, Bio-bibliography of Sixteenth Century Medical Authors, Library of the Surgeon General: Index Catalog 4th set, vol. 6, supp. 3 (Washington D. C.: U. S. Gov. Printing Office, 1941); K. F. Russell, "Checklist of Medical Books Published in England Before 1600" BHM 21 (1947) pp. 922-958; K. F. Russell, "A Bibliography of Medical Books Published in England Before 1800," BHM 23 (1949) pp. 268-306; K. F. Russell, British Anatomy, 1525-1800: A Bibliography, (Parkville, Victoria: Melbourne U. P.), 1963; H. S. Bennet, English Books and Readers 1475-1640, 3 vols. (Cambridge: C. U. P., 1970).

25

Ambroise Paré, The Works, trans. Thomas Johnson (London, 1634) sig. 2<sup>v</sup>.

26.

Bennet, III. p. 140. For a further example of such a defence, and the controversy surrounding it, see Robert Copeland's translation of Guy de Chauliac's Chirurgia Magna (a Galenic work of the 14th century). Copeland's translation appeared under the title The Questyonary of Cyrurgyens in 1542. The work is defended because its contents "ought... to be set forth by wrytynges vulgarlily in euery tongue" (sig. 2A<sup>v</sup>). For a full discussion of the text, and its context see: Mary C. Erler, "The First English Printing of Galen: The Formation of the Company of Barber Surgeons," HLQ 48 (1985) pp. 159-171.

27

The effect of the Bishop's condemnation is disputed. Keynes (Life of Harvey, p. 74) suggests that Crooke's work eventually passed without censure, whilst O'Malley ("Helkiah Crooke" p. 7) suggests the opposite.

28

The first ed. of 1615 was followed by re-issues of 1616 and 1618. A 2nd ed. appeared in 1631, and a 3rd ed. in 1651.

29

See O'Malley, "Helkiah Crooke" p. 8; O'Malley, "Tudor Medicine and Biology," HLQ 32 (1968) pp. 1-29

30

Gale, Certaine Workes of Galens, dedication to Sir Henry Nevell, sig. A3<sup>v</sup>.

31

Michel Foucault, The Order of Things, (1966, trans. London: Tavistock Press, 1970) p. 55.



32

See C. P. Conger, Theories of Microcosms and Macrocosms in the History of Philosophy, (New York: Columbia U. P., 1922); Arthur A. Lovejoy, The Great Chain of Being, (Cambridge, Mass.: Harvard U.P., 1936); Rudolph Allers, "Microcosmos from Anaximandros to Paracelsus," Traditio 2 (1944) pp. 319-407; J. B. Bamborough, The Little World of Man, (London: Longmans Green & Co., 1952); Joseph Mazzeo, "Metaphysical Poetics and the Poetry of Correspondence," JHI 14 (1953) pp. 221-234; C. A. Patrides, "The Microcosm of Man: Some Reference to A Commonplace," NQ (1960) pp. 54-6; Leonard Barkan, Nature's Work of Art: The Human Body as Image of the World, (New Haven: Yale U. P., 1975); Don Parry Norford, "Microcosm and Macrocosm in Seventeenth Century Literature," JHI 38 (1977) pp. 409-428.

33

Sir Thomas Browne, Works, ed. Sir Geoffrey Keynes, 4 vols. (London: Faber & Faber, 1964) I. p. 44.

34

Thomas Rogers, The Anatomie of the Minde (London, 1576) "Preface to the Reader" sig. A3.

35

Francis Herring, The Anatomyes of the True Physition and the Counterfeit Mounte-banke (London, 1602) p. 10.

36

Peter Lowe, A Discourse of the Whole Arte of Chirurgerie (London, 2nd ed., 1612) p. 122.

37

Helkiah Crooke, Microcosmographia (London, 1615) p. 12.

38

T. J. Arthur, "Anatomies and the Anatomy Metaphor in Renaissance England," Ph.D. diss. University of Wisconsin-Madison, 1978). p. 19.

39

For the connections between satire and surgery see: M. C. Randolph, "The Medical Concept in English Renaissance Satiric Theory: Its Possible Relations and Implications," SP 38 (1941) pp. 125-157.

40

John Woolton, A Treatise of the Immortalitie of the Soule, (London, 1576) sig. 2<sup>v</sup>.

41

Woolton, Immortalitie of the Soule, sig. 3<sup>r</sup>.

42

See William E. Addis & Thomas Arnold (eds.), A Catholic Dictionary, (London: Virtue & Co., 10th ed., 1928) p. 33.

43

John Woolton, A New Anatomie of Whole Man, (London, 1576) sig. B2.

44

Woolton, New Anatomie, sig. A2<sup>v</sup>.

45

William Hill, The Infancie of the Soul, Or The Soule of An Infant, (London, 1605) sigs. C3<sup>r-v</sup>.

46

Anon., The Anathomie of Sinne, (London, 1603) sig. B6<sup>v</sup>.

47

George Strobe, The Anatomie of Mortalitie, (London, 1618) sig. A4.

48

John Weemes, Works, (London, 1636) p. 22.

49

Thomas Newton, The True Tryall and Examination of a Mans Owne Selfe, (London, 1586) sig. \*3.

50

Henry Cornelius Agrippa, Of the Vanitie and Uncertaintie of Artes and Sciences, trans. John Sandford (London, 1569) sig. 2<sup>r</sup>.



## Chapter Two: Anatomy and the Question of Method.

## Introduction

Mid-way through a description of the creation of man, in the Divine Weeks of Du Bartas, the poet begins an anatomy of the human frame. "But is't not time now in his Inner Parts / To see th'Almightie's admirable Artes?" he asks (DW I. VI. 665-666)<sup>1</sup> before posing another question: "First, with my Launcet shall I make incision, / To see the Cells of the twinne Braines devision...?" (DW I. VI. 667-668). But no sooner has the poet/anatomist decided to begin his dissection with the head than a fresh problem confronts him. "O, how shall I on learned Leafe forth-sett / That curious Maze, that admirable Nett...?" (DW I. VI. 677-678). Opening the human body, he is learning, is a task fraught with difficulties. The problem of where to begin his dissection is allied to the question of how to record his observations. His difficulties are compounded by the fact that the "admirable Nett", or rete mirabile (a net-work of vessels at the base of the brain), is to be found in cattle, but not in man.<sup>2</sup>

But the term "curious maze" is an apt description not only of the non-existent net, but of the labyrinth of the human body in which Du Bartas has lost himself. Perhaps, he reflects, he should not have begun at the head. Possibly commencing his anatomical survey elsewhere in the body might have been preferable:

Shall I the Harts un-equall sides explaine,  
Which equall poize doth equally sustaine...  
Or, shall I cleave the Lungs, whose motion light,  
Our inward heat doo temper day and night...  
Or, shall I rip the stomaches hollowness,  
That readie Crooke, concocting everie Messe...?

(DW I. VI. 685-702)



The rhetorical thrust of this series of questions is designed to suggest the rich complexity of the structure of the human body. But it is a complexity which, whilst it hymns the mind and method of the creator, leaves the poet baffled. With the growing understanding that he is ill-equipped for the task of anatomizing the human frame, he turns the undertaking over to the professional enquirers - the anatomists:

But, now me list no neerer view to take  
 Of th'Inward Parts, which God did secret make;  
 Nor pull in peeces all the Humane Frame:  
 That worke, wear fitter for those men of Fame,  
 Those skillfull sonnes of Aesculapius:  
Hippocrates; or deepe Herophilus:  
 Or th'eloquent and artificial Writt  
 Of Galen, that renowned Pergamite.

(DW I. VI. 725-732)

Du Bartas is very much in step with his medical contemporaries. In confronting the human body and asking the question "Where do I begin?" Du Bartas is not just indicating the complexity of the structure which lies before him, but he is also registering, with some accuracy, a problem which all renaissance anatomists had to deal with. The problem is one of method and order. The doctrine of correspondence (to which Du Bartas, as we might expect, adheres rigidly) took the body as being in itself a principle of order which helped to categorize information about the external world. By tracing, though metaphor, simile, and analogy, the correspondences between the parts of the microcosm and the equivalent parts of the macrocosm, the observer is able to impose order on an otherwise chaotic mass of information.

But the anatomist cannot take the body as a ready-made means of reference. His task is to enquire directly into the structure of the

frame, and the knowledge that the parts which he uncovers might be analogous to parts of the macrocosm is of little help in understanding what the relationship of the various organs might be interse. How, in other words, is the body itself to be ordered and systematized?. Thus Du Bartas's bewilderment in front of the body is more than a poetic expression of God's creational power. It is also an echo of the bewilderment which the anatomist experienced in the course of his explorations.

#### Methods of Dissection

Du Bartas's uncertainty, when faced with the problem of how best to begin exploring the body, is, as we have seen, rather unsatisfactorily resolved by turning the whole matter over to the "skillfull sonnes of Aesculapius". But the anatomists themselves were unsure of which method would prove the most fruitful. The body, they reasoned, may be complex, but, since it was created by God, it could not be disordered. Their task was to uncover the order by which the body had been created, and then to reverse that order in their own investigations. At least, that is the conclusion which Crooke reached in 1615:

Nature first lineth out the masse of Seede, the warp of the body, and after that with the worf filleth up the empty distances: first she layeth out the foundations, rayseth the stories, bindeth the joyntes and plastereth the walles, till it come unto a perfect building. Art on the contrary takes it asunder peece and peece, proceeding from that which is more to that which is lesse compounded, till at length it come unto the very ground worke or foundation.

(Microcosmographia, P. 7-36)

Crooke's conception of method, here, is determined by the metaphor of the body as a building. God as the "architect" of the



body (a widespread term amongst both anatomists and theologians in the period) creates a structure or building which the anatomist is subsequently able to methodically demolish.<sup>3</sup> But the question remains, how is the ordered demolition to proceed? Where is the anatomist to begin?.

The simplest conception of the body is to see it in terms of an organism with a "top" and a "bottom". Thus the anatomist begins with the head, and works down to the feet. Du Bartas, in the course of registering his confusion, adopts just such a procedure, pondering over the head, before moving on to the heart and lungs, and then the stomach. But this method already presupposes that the body has been intellectually divided into defined areas, or, to use the Renaissance term, "cavities": head, thorax, and abdomen. Jacob Mosau's translation of Christopher Wirtzung's Ein Newes Artzney Buch (first published in English in 1598) follows this "natural" order of dissection, claiming that it is "easie and methodicall, descending from the head to the foot".<sup>4</sup> The order may well have been easy, but whether or not it was practicable was another matter.

At the heart of the matter is the fact that the renaissance anatomist had to work without any means of preserving the cadaver from decay. It is not surprising that this also helped to determine the method of procedure. Most practical anatomical text-books of the period adopted the "order of anatomy" which had existed from medieval times, and which dictated that the anatomist began with those parts most susceptible to decay, and then moved on to other areas. This is the method favoured in one of the earliest anatomical treatises, the Anathomia of Mondino (composed c. 1316, published at

Venice in 1493), and this became the recognised "order of anatomy". The dissector began with the abdominal viscera, then turned to the thoracic cavity, the head, and finally the external members, the limbs.

But by the time Du Bartas had written his Divine Weeks a new order of anatomy had come into being, and one that presented peculiar problems both for the practical anatomist, and for the layman (or poet) who wished to present an ordered image of the body's construction.

In 1543 the professor of anatomy at Padua, Andreas Vesalius, published his De humani corporis fabrica together with an Epitome (a brief summary of the main work, together with the all-important illustrations). Vesalius's De humani not only set a new standard for anatomic illustration, but it also presented a radically new method of ordering the human body.<sup>5</sup> What Vesalius undertook was to offer:

...virtually a building (fabrica) of the human body. First he describes the scaffold - the bony skeleton - then the muscles, the vascular system, the nervous system, the organs of nutrition and other abdominal viscera and lastly the brain.

6

Vesalius's method had the advantage of being clear and systematic. It also, in its simplicity, seemed to the renaissance anatomist to mirror the "order of nature". Thus, only three years after the publication of Vesalius's work, the French anatomist Charles Estienne was able to pronounce confidently that his anatomical description would begin with the bones since this was "l'ordre de nature" with which the body had been created.<sup>7</sup> But Vesalius's new "order of anatomy" did not supplant the old method when it came to the exigencies of practical dissection. Though it was an admirable method for discussing the body as a systematized structure, it was hopeless when it came to meeting the demands of dissection. How could the practical



anatomist begin with the bones? The problem remained, first he had to cut down to them, and that entailed facing the question, once more, of where to begin.

So by the time Du Bartas was writing his poetic anatomy of man, in the 1570's, there existed two different methodological approaches to the human body. The first was to see it from the point of view of the practical anatomist, a decomposing organism, whose cavities had to be opened in a given order before the task became insufferable for both anatomist and audience. The second method was to see the body in a theoretical light, as a structure, analogous to a building, the relationship of whose parts was determined in much the same way as a building was put together.

How these two methods were resolved into some type of harmony is illustrated by the history of the translation of Vesalius's work into English. In 1545 an edition of De humani was published in England by Thomas Geminus, a printer and engraver, and at some stage in his career surgeon to Edward VI. Geminus's edition of De humani was entitled Compendiosa totius anatomie delineato and comprised the illustrations from De humani, with a Latin text taken from Vesalius's Epitome.

In 1553 a second edition of the Compendiosa was published with an English text. This text, rather than being a translation of Vesalius's original Latin text, was in fact a reproduction of Thomas Vicary's A Profitable Treatise of the Anatomy of Mans Bodie (1548). The 'translator' was Nicholas Udall, author of the play Ralph Roister Doister. In electing to accompany Vesalius's drawings with Vicary's text (which followed the old "order of anatomy" familiar to the pre-

Vesalian anatomist) Udall was skilfully adapting the accurate anatomical observations of Vesalius to the demands of the practical dissector.<sup>8</sup>

From the point of view of imaginative literature, as I hope will become clear, the Vesalian method was of enormous importance. To imagine the body as a type of building was a trope which poets had long been aware of. The metaphor of the body as building, or city, is, obviously, allied to the metaphor of the body as state, and all come under the general metaphoric domain of correspondence. Neither is this a specifically Western habit of thought. A. K. Coomaraswamy, in a discussion of an Indian temple, has observed that:

...the human frame, the constructed temple, and the universe being analogical equivalents, the parts of the temple correspond to those of the human body no less than to those of the universe itself.

9

If, for "Indian temple", we read "church", then the metaphor is placed within an equally ancient, but christian context. "To some Anglo-Saxons" William Johnson suggested "...the ideas of hall, church, and body were naturally analogous" and Johnson goes on to explore the location of the Old English poem The Ruin, a poem in the Exeter Book manuscript, as being a part of the "ancient tradition of sacred anatomy".<sup>10</sup> This tradition, according to C. L. Powell in an article published in 1919, embraces a variety of texts.<sup>11</sup> Robert Grosseteste's Le Chateau d'Amour, and the homily Sawles Warde (both from the first half of the thirteenth century), together with Passus IX ('B' text) of Piers Plowman can be placed within the tradition of the castle or house of the body, together with the more obvious candidate of the House of Alma passage of the Faerie Queene (Bk. II Canto IX).<sup>12</sup>



Vesalius's conception of the body as building not only fitted into a metaphorical construction which was familiar in the period, but it also gave new life to the metaphor. At the point in time when the doctrine of correspondence between macrocosm and microcosm was on the wane, this "newest" of sciences seemed to be giving sanction to a metaphor which was at once fresh in the manner in which it could be applied, but reassuringly familiar as a traditional form. The post-Vesalian anatomist, then, was given an approach to the body which seemed to conform to the evidence of experience, and at the same time allowed access to a rich tradition of imaginative conceits.

Certain difficulties remained however. No matter how useful the anatomic building was as a general theoretical conception for the anatomist, it still was of little help in assisting him in the day to day business of dissection. The English version of Vesalius's work, we have seen, attempted to synthesize the two approaches by providing the necessary illustrations with an older text, in which the body is divided into its various "ventricles", the first of which is the lower abdomen or "nethermost belly". John Bannister, on the other hand, in his Historie of Man (1578), enthusiastically adopted the architectural conceit, and began with the bones since the "Divine Architect" erected the timber frame of the structure "before he lay on thack, tile, slate, lime, or Plaster".<sup>13</sup> Helkiah Crooke was a good deal more circumspect. Though his work abounds in architectural metaphors, and though his debt to Vesalius is clear (the illustrations to Crooke's work being derived from Vesalius), yet the order of dissection which he follows is the older pre-Vesalian method. Microcosmographia begins with the abdomen (Book II), and then moves

through the "Parts of Nutrition" and the "Parts of Generation" (Books III and IV), the chest (Book VI), Head (Book VII), and it is only in Book XIII, the final book, that Crooke contemplates "the very foundation and groundworke where-on the whole frayme is raised" - the bones. (Microcosmographia, P. 907).

### The Body as Building

...since nature has designed the human body so that its members are duly proportioned to the frame as a whole, it appears that the ancients had good reason for their rule, that in perfect buildings the different members must be in exact symmetrical relations to the whole general scheme.

14

Vitruvius's statement concerning the relative proportions of the human body and the harmonious building was, of course, widely accepted in the Renaissance.<sup>15</sup> It would have been impossible for an anatomist, engaged in opening the "temple" of the body, to be unaware of the architectural correspondence. Certainly, the connexion between the observed symmetry of the body and the proportions of a design was made again and again, to the extent that the language of architecture informed the language of anatomy. Thus Sir Henry Wotton, in his Elements of Architecture (1624), in describing how a wall should be constructed, seems to endow the bricks and mortar with a type of organic life through his development of a metaphor based on correspondence between the body and a building. "Ledges", Wootton writes "of more strength than the rest should be interlayed like Bones... the Angles bee firmly bound, which are the Nerves of the whole Edifice...".<sup>16</sup>

Some degree of anatomical knowledge was expected on the part of the Renaissance architect, as Sebastiano Serlio, the architectural



theorist, makes clear in his L'Architettura (1537, translated into English 1611):

...there is as much difference between an open bodye and a solide, as there is between the modell of mans bodye, that is nothing but bones without flesh and skinne: and a living body of a man covered over with flesh (although it is hidden under it). And as those paynters are much perfecter that have seene, and perfectly beheld, right Anatomies, then others that onely content themselves with the outward bare shew of the superficies, so it is with perspective workers...

17

The architect and the anatomist, then, must develop a shared sense of a structure's hidden configuration. Given this sense of common perspective, it should come as no great surprise to learn that Lomazzo's influential Trattato dell' arte della pittura, scultura et architettura (Milan, 1584) should have been translated into English by a physician, Richard Haydocke. Another physician, John Case, went so far as to suggest that Hippocrates (were the work available) would have benefitted from studying Lomazzo, since from the Italian he would have learned "exact and true proportion of Humane Bodies".<sup>18</sup>

Lomazzo and Serlio were only the latest of many theoreticians in the Renaissance who had advocated the study of human anatomy as a means of comprehending the body's relationship to the external world and what was to be found therein. Within the context of the architectural understanding of the human body, Leonardo da Vinci is of considerable importance. Leonardo's anatomical work has been well documented.<sup>19</sup> Though the precise status of Leonardo's anatomical observations has been the subject of much debate,<sup>20</sup> it is clear that Leonardo's own (unrealised) study of the human figure can be thought of as anticipating the later work of Vesalius. Leonardo had

intended to produce a book on the human figure some time before April 1489, when a programme for the work was devised. Carlo Pedretti has observed of this programme that it:

...aimed at showing the gradual 'building up' of the human figure (*cresciere l'uomo*) from infancy to old age, and from bones to flesh. Leonardo conceived of this process as that of the building up of a statue (and one is reminded of Alberti's *De Statua*), an anatomical model produced for didactic purposes.

21

But it was not until the publication of Vesalius's work that such a "building up" was to be produced. Indeed, Martin Kemp has suggested that the 1489 programme would have produced a treatise which "was not so much an anatomical book as a far-reaching exposition of man's role in the natural order of things".<sup>22</sup> It is just such all-encompassing treatises, using the insights gained by anatomy, which were to be produced in the late sixteenth century by the French encyclopaedic writers.

But, for Leonardo, and the later contemporaries of Serlio and Lomazzo, the body can be understood as offering a standard of measurement and order. As Sir Walter Raleigh was confidently to assert: "Homo est mensura omnium rerum", and the authority of Aristotle and Pythagoras are cited as evidence to support this truth.<sup>23</sup> For Serlio and Lomazzo this metaphysical statement could, via the medium of architecture, be translated into a physical reality. The architectural standard, moreover, was given added substance through the new anatomical methods encouraged by Vesalius and his followers. For the Vesalian anatomist the human body not only could be compared to a building in terms of its proportions, but also in terms of its principles of construction.



### The Encyclopaedia and Anatomy

For one particular group of writers (if such a heterogeneous body can be thought of as a "group") the insights suggested by anatomical study, were of considerable importance. The French "encyclopaedic" writers of the sixteenth century seized on the metaphorical implications of anatomy at a point when Vesalius's structural approach to the human frame was becoming part of the anatomy teacher's vocabulary. For Pontus de Tyard, Pierre Charron, Ambroise Paré, Phillipe de Mornay, and Pierre de la Primaudaye, anatomy was to play an important methodological part in their work, and one that helps to illustrate the fascination which this "new science" held for those who appeared to have little formal connection with medicine.

Of these writers, de Tyard and Charron can be passed over fairly rapidly. De Tyard's platonic discussions - Solitaire Premiere and Solitaire Seconde - were first published in 1552 and 1555 respectively, and re-appeared as part of de Tyard's Discours in 1587. The Solitaire Seconde deals, in particular, with the ravishing effects of music, and the correspondence between harmonic proportion and the proportions of the created universe. The source for these ideas is, presumably, that section of Plato's Timaeus which explains the fabric of the "world soul" in terms of the intervals which define a musical scale.<sup>24</sup> The human body, de Tyard observes, is constructed according to musical proportion, in much the same way that the world itself seems to correspond to a harmonious design:

The symmetry with which the members of man are joined one to another is wonderful: and although stature might be diverse; the most common proportions are found to be for the most part similar (save with monsters): the proportions, I say, quadrupled, doubled, tripled, equal and halved, and others, from which you know the musical consonances to be drawn.

This harmonic proportion can be revealed by anatomy:

...I am pleased by the diligence of the ancients,  
who...were not horrified at the cruelty of anatomy,  
in assuring themselves of the exterior and interior  
measurements of the human body.

26

Significantly, it is the diligence of the "ancients" rather than any modern anatomist which calls forth de Tyard's admiration.

Despite Frances Yates's comment to the effect that de Tyard's work represents an encyclopaedia of knowledge, it is apparent that the knowledge which it gathers is classical rather than contemporary.<sup>27</sup>

Perhaps this should be no surprise, given that one historian of the French Renaissance has asserted that "...French cultural development was behind the times ... one is tempted to say that the further you went from Paris ... the greater chance you had of meeting progressive spirits".<sup>28</sup>

De Tyard's work, and in particular his discussion of the human body in terms of musical proportions, seems to be closely allied to the approach adopted by the neo-platonist philosopher Francesco Giorgio. Giorgio's De harmonia Mundi (Venice, 1525) contains a similar reference to the harmonic construction of the body. Of the human frame, Giorgio observes that:

...such things are hidden (controlled all the time by harmony) as the veins, nerves, and entrails, which nobody is able to find, not even (says St. Augustine) that same cruel diligence of the anatomists, who cut up and divide dead bodies, to search for all that is there hidden...

29

The work of de Tyard and that of his precursor, Giorgio, is encyclopaedic in so far that, in Levi's words, it represents "the authentically encyclopaedic ideal of a spherical, that is interlocking and



interdependent, organization of the disciplines." <sup>30</sup> But there is also a vigorously anti-rationalistic tendency in these works. In the case of de Tyard, the central thesis of the Discours is that science, far from explaining the universe, must eventually give way to knowledge gleaned from intuition fostered by faith.

In much the same way Pierre Charron's La Sagesse (published in 1601, and translated into English some time before 1606) <sup>31</sup> advances an attitude which is fundamentally sceptical of the new science of the age. At the heart of La Sagesse is the belief that knowledge derived from purely sensory information is, at best, suspect, and that real knowledge can only be attained through the agency of divine revelation. If man is to comprehend the works of God, then the only sure guide in his task is faith.

Within this context, the study of man takes on some of the quality of a mystical search. "Knowledge of ourselves" says the prefatory material to Charron's work "and our humane condition...is the foundation of wisdom". <sup>32</sup> But this search for self-understanding is conducted with one end in sight - the certainty that it is possible to trace the "footsteps of the divine nature" in man. Man can thus be thought of as:

...a summary recapitulation of all things, and an Epitome of the world, which is all in man, but gathered into a small volume, whereby he is called the little world, as the whole universe may be called the great man...

(Of Wisdom, sig.B4<sup>v</sup>)

In essence this is no more than a re-statement of that renaissance common-place which held that the universe can be thought of as a book, written by God, and that man is a condensed version of the same. Charron, true to his fideistic impulses, draws back from

examining this "small volume" too closely.

"L'idéal d'une science complete s'oppose à l'ideal de l'Humanisme qui tendait à une perfection harmonieuse..."<sup>33</sup> For de Tyard and Charron the hope of "perfection harmonieuse" was, in the end, a higher goal at which to aim when juxtaposed with the aspirations of the encyclopaedists. If anatomy as a science can contribute to this higher goal, only then can it be admitted to the "spherical... organization of the disciplines".

But for another section of encyclopaedic thought, anatomy, especially the new anatomical methods of Vesalius, with their emphasis on the architectural composition of the human body, seemed to open up a new field of discourse. For de Mornay, Paré, and La Primaudaye the contemplation of the composite structure of the body led to much more than mere anatomical discovery. It could provide an analogical means of approaching the problem of how knowledge was to be ordered. In this sense anatomy was to make a contribution to the true encyclopaedic ideal, which went much further than simply providing, to quote Levi again, "a mythological register" which expressed "confidence in the power of universal knowledge".<sup>34</sup> The Encyclopaedia, as it was envisaged by these somewhat later writers, was concerned not just with the problem of amassing facts but also with the difficulties of ordering knowledge to form a unified system of understanding. Anatomy, which itself encountered the complexities of order and method, was to make a considerable contribution to this undertaking.

That Ambroise Paré (1509-1590) should have stressed the importance of anatomy might be expected, given his fame and reputation as a surgeon. Paré had accompanied the French army to Turin in 1537, and it was there that he perfected surgical techniques in the treatment



of gunshot wounds. Observation and experience, Paré believed, were at least as important as careful study of the ancient authorities, though that is not to say that Paré abandoned Galen completely.

Where Paré differs from Tyard or Charron is in his refusal to admit analogical reasoning into his anatomical explorations. Thus Paré rejects the opinion that the heart is the 'monarch' of the body (a view expressed by Harvey in his lectures on circulation given in 1616, and repeated in the first edition of De Motu Cordis in 1628), and instead claimed that the head should be understood as the most important part of the human frame. Though this may seem to be no more than the exchange of one unprovable assertion for another, it is in fact a specific rejection of the platonists' delight in arguing through analogy. For, as Paré goes on to make clear, the neoplatonist conception of the head as a 'noble' part of the frame because its roundness imitates the circularity of the spheres can be dismissed with an appeal to common observation: "...those heads which are exactly round, or acuminate, and sharp towards the top, are not thought good."<sup>35</sup>

Paré's Oeuvres were first published in 1575 at Paris, and translated into English by Thomas Johnson and published as The Workes of that Famous Chirurgeon Ambrose Parey in 1634, and re-issued in 1649. The work, in both English and French editions, is profusely illustrated. Paré, in the French original, had used illustrations derived from Vesalius. The English edition, for some reason, appeared not with Vesalius's original drawings, but with a set, Johnson explains, "which were used in the work of Dr. Crooke, and these indeed are the better and more complete". (Workes, sig. 2<sup>v</sup>). In fact Johnson was mistaken, since the drawings Crooke had used in Microcosmographia were themselves derived from Vesalius, and these are the images which

appear in the English version of Pare's work. <sup>36</sup>

Paré's use of Vesalian images is significant. For it soon becomes apparent that his approach to both surgery and anatomy, and to the wider question of the organization and presentation of a body of knowledge, is influenced by the methods which Vesalius had adopted. In following Vesalius, though, Paré by no means abandons entirely the theological justification for the study of anatomy which can be found in non-medical works of the period. Indeed, Paré suggests that the most important reason for studying the body is a religious one:

...because thus we are led to the knowledge of God the creator, as by the effect to the cause; for as we reade in Saint Paule, the invisible things of God are made manifest by the visible.

(Workes, P. 80)

Once more we are faced with the idea that the body is a form of divine illustration, and that the anatomist can consider himself as both an explorer and interpreter of the evidence which the body conceals within itself.

In terms of methodology, Paré was very much aware of the difficulties which, poetically, Du Bartas was to present. What is the best means of procedure in confronting a complex organization of parts and information? Paré's answer is to set down three distinct methods of procedure, explaining each one in turn, and then combining them in order to offer a method of investigation which is at once practical and theoretically coherent.

Anatomy defined as a "perfect and absolute division, or artificiall resolution of mans body into its parts, as well generall as particular, as well compound as simple" Paré considers under three general headings - "Composition", "Division", and "Definition".



"Composition" is taken to be a form of analysis in which "the order and beginning are taken from the least and most simple to the more compound". This, says Paré, is the method encouraged by Aristotle. The second method - "Division" - is a purely investigative method where compound forms are broken down into their constituent parts. Of this method we are told that it is "fit for the invention and finding out of sciences". Finally there is "Definition" (used, says Paré, by Galen in his Ars Parva) "which sheweth the nature and essence of things". This final method may be understood as an analysis based on the understanding of function, rather than position within the body or appearance. 37

As a Vesalian anatomist, we might expect Paré to follow the first method - "Composition" - where the body would be understood as a structure which the anatomist explains by moving from the foundations (the bones) upwards and outwards, just as Vesalius had done in 1543. But what Paré in fact elects to do is to combine the second and third systems - "Division" and "Definition". "Composition" remains an unrealized ideal, since it is quite impossible to follow this method when dealing with the problem of a decomposing corpse. "Composition" is thus abandoned, even though, throughout his work, Paré gestures towards it as the best theoretical approach. Instead the "vulgar" (Paré's term) method of dividing the body according to its three "wombs" or cavities is adopted, where, just as in Mondino's fourteenth century text on anatomy, the order of dissection is determined by the order of decay.

It is in attempting to offer an account of the alternative systems of anatomy that Paré's importance to a discussion of methodology is manifested. The fact that, in the end, Paré as a

practising anatomist has to reject the teaching methods of Vesalius as an impossible ideal can be counted as an ironic example of method being in advance of technology. For Paré, the result is a practical explanation of how to dissect the human body which is constantly aware of its own theoretical limitations. That awareness is apparent on at least two levels. The first results in a rejection of the analogical understanding of anatomy, and the second level involves Paré in, paradoxically, introducing a new group of metaphors into his discussion - metaphors based on understanding the body in terms, once more, of an architectural structure.

For example, it was a commonplace shared by poets and anatomists to exalt sight as the most noble of the senses. The justification for the position which sight enjoyed in this hierarchical ordering was often based on a specifically platonist form of argument - the eyes seem to mirror the concentric ordering of the spheres. Thus Helkiah Crooke's prose reaches rarified heights of hyperbole as he struggles to offer fitting praise to the divine roundness of the eyes:

Nature is never wont to use this noble figure, but when she endeavours to erect some difficult or excellent work...in respect of their exact roundness and revolutions: wherein besides the membranes which I dare boldly call the seven spheres of heaven there be also the four elements found...If you look upon the Pupilla or Apple, shall not you see shining starres, yea rather a beaming sun? Wherefore thou maist not unfitly call the eyes with the Poet...The Gates of the Sunne. Shall you not perceive here the diverse-coloured Rainbow framed with a sevenfold circle? Shall you not also observe haile and infinitie other things, which do most fully declare the excellencie of this sence by themselves without any aditament of our Oration?

(Microcosmographia, P. 646)

It was, presumably, similar "aditament of our Oration" which Shakespeare had in mind when, in sonnet 130, he casually observed



that "My mistress' eyes are nothing like the sun". For Paré such extravagant metaphor is inappropriate. The sight may indeed be the most important of the senses, but for reasons based strictly on an understanding of function, and according to the prescriptive methods encouraged through the application of "definition":

Wherefore this is the most excellent sense of them all. For by this we beholde the fabricke and beauty of the heavens and earth, distinguish the infinite varietyes of colours, we perceive and know the magnitude, figure, number, proportion, site, motion, and rest of all bodyes.

(Pare, Workes P. 181)

Crooke's hyperbolic sense of circularity is in immediate contrast to Paré's definition of sight according to function. What the eyes see is far more important than how they are seen. This constant application of function as an ordering element in Paré's work is revealed not only through his language, but also through the systematic order of description which he adopts. Thus, to remain with the eyes, Paré's description does not appear where we might expect it ( where the majority of renaissance anatomists would have placed it) in the sections dealing with the head and what it contains, but in a subsequent book on the muscles and bones. This decision is based on the observation that the movement of the eyes is a muscular function, and has to be understood as such.

The problems associated with methodology, together with a developed sense of anatomical study as an area in which methodology could be tested, are features of the work of Phillipe du Plessis-Mornay (Phillipe de Mornay) whose De La Verité De La Religion Chrestienne was published at Antwerp in 1581. De Mornay's vast treatise was partially translated into English by Sir Phillip Sidney, but a complete English translation did not appear until

Arthur Golding undertook to finish Sidney's work of translation, and publish it under the title Of The Trewnesse of the Christian Religion.<sup>38</sup>

De Mornay's work represents an extensive categorization of information designed to prove the existence of a (protestant) God, and the immortality of the human soul. To this end he straddles a whole range of scholarship, moving through the writings of the Church fathers, Biblical authority, the classics, Hermetic lore, and the observations of contemporary natural scientists. It is, at least in its scope, a work which can deservedly be termed encyclopaedic.

Though De Mornay specifically rejects neoplatonism as a coherent philosophical scheme, Religion Chrestienne is indebted to neoplatonist forms of argument.<sup>39</sup> "Concerning God" De Mornay writes in a chapter summarizing the arguments for the existence of an immortal soul:

we have acknowledge/him to be a spirit: and as touching the world, we have found it to be a body. In man we have an abridgement of both, namely of God in respect of spirit, and of the world in composition of the body, as though the creator of purpose so set forth a mirror of his woorkes... we see in mans body a wonderful mixture of the foure elements, the veynes spreading forth like rivers to the uttermost members...a great number of sinewes, fleshstrings and knitters, a head by special priviledge directed up to heavenward; and hands serving to all manner of services.

(Christian Religion, P. 225)

We are tracing, here, both those patterns of analogical thinking which had appealed to writers such as Charron and De Tyard, influenced as they were by neoplatonist conceptions, and the familiar theological justification for anatomical study of the human frame. Man is conceived of as the summary of God's works, and the anatomist the skilled interpreter of that summary. But De Mornay's expression of



a unified creation is much more than a pure response to neoplatonism. It is also the result of an intense awareness of methodology.

In a work whose field is as enormous as Religion Chrestienne, the problem of the organization of the material is a pressing one. De Mornay is very much aware of this problem, and in an illuminating passage (to be found in the dedicatory preface to Henri de Navarre) De Mornay confronts the difficulties squarely:

Howbeit, in this lyeth our fault, that (whether it be through ignoraunce or through negligence) we consider not the incomparable work of our creator & recreator, but by piecemeale, without laying the one of them to the other: like as if a man would judge of the whole space of time by the night, or by some one season of the year, or by some one of the Elements: or as if he would judge of a building by some one quarter...whereas...Gods wisdom in creating things cannot be considered but in the union of the partes with the whole, and of themselves among themselves.

(Christian Religion, Sigs. 2\* v-r)

This argument would appear to return us to Paré's definitions of methods of investigation, and to the problems of describing a complex structure which can, just as in an anatomical investigation, be broken down into its constituent parts. The world, De Mornay argues, cannot be understood in fragments. Instead, it is a unified structure, and the investigator must be aware of "the union of the partes with the whole". Method, then, rather than "piecemeale" division is to be preferred by the observer who will avoid the charges of either "ignoraunce" or "negligence".

Even though De Mornay asserts his opposition to neoplatonism, we have seen that he was quite willing to resort to ne<sup>o</sup>platonist patterns of analogical description. For De Mornay analogy was intimately connected with methodol<sup>o</sup>gy, since his own conception of the

world was one which assumed an analogical relationship between the parts of the world, whilst at the same time he was unwilling to describe those parts in a haphazard or "piecemeal" fashion. The problem is to uncover a method of dividing the world into its various parts, whilst at the same time asserting its structural unity.

In chapter VII of Religion Chrestienne, entitled "That the World had a Beginning", De Mornay attempts to offer a division of the world which will rest on secure methodological foundations, and will encompass the unified nature of the complete structure. The fundamental aim of the chapter is to refute the sceptical position that claims it to be impossible to know whether or not there was a beginning to the world, let alone know whether or not God began it. So, De Mornay ransacks the natural world in pursuit of exempla. These are set down to support an argument which maintains that if all things contained within the world have a beginning (and by implication, therefore, an end) it is at least probable that the world itself had a beginning.

But, as De Mornay himself is aware, this method of procedure is an argument which proceeds from the parts rather than the whole. Such an approach can only be justified if the relation between the parts and the whole can be demonstrated. So, at the end of the chapter, De Mornay is faced with the difficulty of bringing a mass of information into a structured form where the relation of the parts to the whole can be easily grasped:

Thus then ye see how that as well by the partes of the world, and by the whole world itself, as also by the agreement of the whole with his parts, and of the parts among themselves, we be evidently taught that the Frame of the world had both a workmayster and a beginning.

(Christian Religion, P.105)



This, essentially, is an anatomy of the world. The key word for De Mornay is "agreement". If it is accepted that the parts are in agreement with one another, and with the whole, then it becomes acceptable to employ "division" as a method of investigation. In contra-distinction to "division" as a method, though, stands "composition". "Composition", it will be recalled from Paré's definition of terms, is a method in which "the order and beginning are taken from the least and most simple to the more compound". What De Mornay has undertaken, then, can be seen to be similar to Vesalius's method. He employs "division", a process which reveals those parts which share common attributes, and which communicate their structural nature to one another and to the whole. The intention is not to assert the individuality of the parts, but to reveal the composite structure of the complete "frame". The dissection which is accomplished reveals not a divided body, but a coherent and unified whole, the structure of which is informed by the common structural characteristics of its constituent parts.

Given De Mornay's interest in the theoretical process of division and composition, we might expect him to express an interest in anatomy - the science which, above all others, it might be supposed, exists as a practical application of the theoretical problems with which he was dealing. This is indeed the case, though with some qualifications. De Mornay does employ the observations of anatomists in his work, but by and large it is the old, Galenic, anatomy which he relies upon. Thus, in a work published in English in 1602 entitled The True Knowledge of A Mans Owne Selfe, De Mornay draws upon anatomical information, but only insofar as it exists to provide him with an analogical framework upon which to suspend observations

concerning both the natural world, and the world of politics and government.

Throughout The True Knowledge of A Mans Owne Selfe we find the extended conceit in which the operations of the soul within the body are compared to the operations of government within the commonwealth. Thus, De Mornay takes the anatomical <sup>observation</sup> that, in the operation of the vital spirits with the arteries "do make communion of their spirits with the veins", and he then compares this process to the ideal structure of the commonwealth in which the individual members communicate "graces, gifts and perfections from one to another".<sup>40</sup> Here Galenic physiology and St. Paul support one another to produce an image of the composite nature of the human body and the church. The communion of "graces and gifts" within the church is a feature of St. Paul's teaching where:

...as the body is one and hath many members; and all the members of the body, whereas they are many, yet are one body; so also is Christ.

(I Corinthians 12. 12)

For De Mornay, this composite organism is comparable to the structure of an ideal commonwealth. So, describing the effects of sleep on the human body, De Mornay observes:

...assuredly, herein we have a lively example of the well guiding, governing, and managing of a commonwealth: For the hart (as Prince and King) enricheth and furnisheth himselfe in time of peace and rest, (commonlie called sleep) to the end he may in needful time likewise, distribute to the liver and stomacke, such spirits as are sufficient for their working...

(True Knowledge, P.27)

The account of the distribution of the vital spirits is based (somewhat inaccurately) on Galen. In Galenic physiology, the heart receives



vegetable spirits from the liver, via the veins. These spirits enter the right ventricle of the heart, and pass (through the non-existent pores in the septum) into the left ventricle where they receive air from the lungs. Thus transformed into vital spirits, they move along the arteries to the brain, where they are converted into animal spirits, and distributed to the rest of the body along the nervous system.<sup>41</sup>

If De Mornay's work alerts us to the importance of method in the pursuit of understanding the human frame, The French Academie of Pierre de la Primaudaye helps us to understand the importance of metaphor. The first part of L'Academie Françoise was published at Paris in 1577. Over the next eighteen years three more sections were published, with various editions, culminating in the collected edition, published at Geneva in 1608-9, with the following description on the title-page: "L'Academie Françoise,...en quatre volumes. (1) de la philosophie morale (2) de la philosophie humaine (3) de la philosophie naturelle (4) de la philosophie chrestienne." This description gives some idea of the enormous scope of La Primaudaye's undertaking. In England the work was partially translated in 1586. The whole work finally appeared at London in 1618.<sup>42</sup>

In order to organize the mass of information which the work was to provide, La Primaudaye divided each book into a series of "dayes". Part 4 is an exception to this scheme, however, in that it is simply divided into two parts. The division of the first three parts into "dayes" may remind us of the scheme adopted by Du Bartas in his Divine Weekes, or the pattern later adopted by Phineas Fletcher in The Purple Island. But La Primaudaye's method of division is not, unlike Du Bartas's poem, an attempt to mirror the days of creation.

Part 1 of the French Academie opens with an account of "the first daies work of this academie with the cause of their assembly". "Four young men of Anjou" have come together under the leadership of an older and wiser companion to learn the knowledge of God, and to encompass, in true encyclopaedic fashion, human wisdom. The debate which takes place amongst the four young academicians begins with an examination of the precept said to have been written in the temple of Apollo at Delphos - "Know Thyself" (F. A., p. 6). This motto, a familiar one amongst anatomists, sets the theme for the debate, and in turn informs the complete work, since La Primaudaye's object is to show that love and knowledge of God must first proceed from self-knowledge. Self-knowledge, though, is taken in its widest sense, to suggest not only understanding of the individual but comprehension of human affairs in general.

The body, or more specifically the anatomized body, is the main subject of Part 2 of The French Academy. The importance of anatomy to La Primaudaye's undertaking cannot be over-emphasised. Not only is this new science a source of metaphors and images throughout the whole work, but it also occupies a place in La Primaudaye's quest for virtue and an understanding of the universe to which no other branch of learning is assigned.

The anatomical sections of the work begin with the most striking figure of all - the image of God as a divine anatomist. Describing the importance of anatomy to the classical writers, La Primaudaye defines the function of the anatomist, and compares that function - the searching out of the "hidden secrets" of the body - to the actions of God on the day of judgement. God, he maintains:



...seeth whatsoever lyeth most secret and hidden  
 ...and is able to make as it pleaseth him an  
 anatomy of both body and soul, and to send them  
 both to everlasting hell fire.

(F. A., p. 346)

The anatomy which La Primaudaye imagines God performing is of a dual nature. At the point of death God divides the human being, or anatomizes him or her, into the constituent parts - body and soul - which form the complete individual. But La Primaudaye is also suggesting a more technical sense of anatomy, and one that we have already met. God, as an anatomist, is imagined as performing a progressive division and separation of the individual. He dissects in order to learn whatever lies "most secret and hidden" in human nature, and judgement is executed on the basis of the secrets which this operation reveals.

Even though the second part of The French Academie is devoted almost entirely to anatomy, it is by no means comparable to an anatomical text-book. The human frame is anatomized not so that the reader can learn how to perform dissections, but so that the 'secrets' of the body will be revealed, and something of God's workmanship will be understood. The anatomy which is performed, in other words, has a moral or theological dimension rather than one which we might term scientific.

In keeping with this consideration, La Primaudaye's order of description of the body is not, in any way, indebted to the demands of practical dissection. Instead, La Primaudaye elects for the method of description which Paré, in 1575, had termed the ideal approach - "composition". This, the Vesalian method, with its related metaphors of construction, allows the anatomist to present an image of the body as a composite organism rather than a progressively divided structure.

The anatomist, in keeping with the metaphor of construction, is as much a builder as he is a demolition expert. In La Primaudaye's account the body is constructed from its building blocks (the "similar" parts - bones, ligaments, fat, and skin) so that it can be appreciated as a series of related structures (head, thorax, abdomen) which are described according to the "order of nature" - working from the top to the bottom.<sup>44</sup>

In La Primaudaye's own words, what he offers first of all is a "drie anatomie" which is "a body consisting only of bones". Once this foundation has been securely laid in the mind of the reader, he is able to build the rest of the structure. The anatomist and the reader he imagines as being engaged on a common construction project:

In this edifice of mans body, the bones occupy the place of stone, which must afterward be committed to the mason to cause them to keep close together, every one in his place. But yet we have to white it over, which is the last covering, to make it fairer, better polished, and more perfect.

(F. A., p. 362)

The body, in its architectural design, can be imagined as a building, but it can also be thought of as a complete household in which eyes become watch-towers, ears are the passages through which the guards of the building hurry, and the brain, the seat of the rational soul, can be imagined as the "highest and fastest fortresse of the whole frame".

The body is thus anatomized so that its hierarchical order can be appreciated. If we think of it as a building, then it is a building in which various activities take place. Once this process has begun the body can be transformed into an allegorized structure, such as we meet in The Faerie Queene. Nor need the body be constrained by the building metaphor. If it is a building in which there are many



chambers, given over to specialized activity, then it isakin , perhaps, to a city - a collection of many buildings. The fundamental architectural metaphor is flexible enough to survive such adaptation, as La Primaudaye makes clear:

Before we considered it, as of the frame of a house: now we shall see it as it were a towne or a city that hath mills and ovens, and artifices of all arts and occupations.

(F. A., p. 386)

The architectural metaphor, developed in this way, eventually transforms the body into a place of socialized activity. Within the various regions, as La Primaudaye illustrates, "the artifices of all artes and occupations" can be uncovered. The end result is a portrayal of the body which, once more, asserts the analogous relationship between the human body and the well-governed state. The one can, quite literally, provide a lively example of the other.

Judging by the number of editions of translations of La Primaudaye's work into English in the late sixteenth and early seventeenth century, it would seem that The French Academie was a considerable success in England. Drummond of Hawthornden, for example, certainly possessed a copy of the book, along with works by De Mornay and De Tyard.<sup>45</sup> Robert Krueger has noted the extent to which Sir John Davies (1569-1626) made use of La Primaudaye's ideas (together with those of De Mornay) in the composition of his philosophical poem Nosce Teipsum (1599).<sup>46</sup> Amongst the ideas which Davies, or any other poet, would have found in the Academy, he would have noted the singular importance in which La Primaudaye held the study of the human body. That this is indeed the case is suggested by the fact that lack of knowledge of the human body is, for Davies, a metaphor for the frail state of human understanding in general:

We seeke to know the moving of each Spheare,  
 And the straunge cause of th'ebs and flouds of Nile:  
 But of that clocke, which in our breasts we beare,  
 The subtill motions, we forget the while.  
 (N.T. 93-96)

When Davies does observe the body, it is with a sense of its architectural nature that he describes it. Again, La Primaudaye's conception of the body as a place of socialized activity, similar to a large building or a town, comes to mind. Thus, when the body is in danger Davies claims that "Blood...gathers to the heart" in much the same way that "Men seeke Towns, when foes the country burne" (N. T. 147-8). Krueger has noted in detail those passages of Nosce Teipsum which seem directly indebted to La Primaudaye, but it is not necessary to define the influence of The French Academy on English writers in terms of only one poem. There is more tangible evidence of the manner in which La Primaudaye's work was received by Englishmen in the early seventeenth century.

This evidence takes the form of "the extremely curious" (the phrase is Frances Yates's) preface to the English translation of the work. The preface is attached to the English <sup>translation</sup> of Part 2 (the section which deals most completely with anatomy). It appears in the English edition of 1594 and in the collected edition of 1618, but not in any of the French editions. It is unsigned, and, though written by an Englishman (judging by the references to "our English youth" and to books being sold "in Paules churchyard"), it is not necessarily the work of the translator Thomas Bowles.

Though the preface is, one assumes, designed to be read as an introduction to La Primaudaye's ideas, its actual relationship to those ideas is tenuous. In some sense, it seems to exist as an independent statement concerning the status of anatomical study,



and as an exploration of the religious and intellectual possibilities which might be engendered through the careful observation of the human frame. Though it can be considered as a type of response to reading La Primaudaye, its author did not seem to have intended the preface as a faithful summary or recapitulation of the main thrust of La Primaudaye's discussion.

The value of the preface to an attempt at following the theoretical discussion of anatomical study at the end of the sixteenth century lies, if nothing else, in its synoptic quality. Indeed, many of the themes which this chapter has set out to explore are traversed in the preface to La Primaudaye's work. The author of the preface embarks upon an anatomical journey through the body which is transformed, in the course of the journey, into an enormous, aristocratic, opulent building. The body is a "pallace", with "casements" and "high watch towers" which are constructed by "excellent workemanshippe":

Now if we shall descend and enter into the contemplation, as of the breast, as of the middle story as of this building, and consider with what goodly householde stuffe those roomes are adorned, who is able either with tongue to utter, or with heart to conceive, the rare devices, the precious jewells, the singular art there to bee founde? What an exceeding faire roome is the dining chamber of the heart, the receptable of the will and affections, the shoppe wherein the vitall spirits are wrought, and the forge from whence is derived that fire and heats which warmeth the whole house...

(Preface, sig. 2E6)

This "beautiful building of mans body" is not only an architectural structure of great richness but it is also a place of activity. If it is a building, it is a building which encompasses a complete domestic economy which is at once self-sufficient and self-generating.

The preface's architectural celebration of the body leads, almost inevitably, into a developed justification for the further study

of anatomy. Once more it is possible to see the preface as a summary not so much of the ideas contained within The French Academie, but as a recapitulation of a complex series of arguments advanced on the part of anatomy throughout the late sixteenth century. Thus anatomy is to be studied firstly for its medical and preventative utility. "For first in regard of ourselves" the preface states:

...if we were thoroughly acquainted with the ANATOMY of our bodies, with the substance and situation, with the forme and qualities, with the uses and offices of every part and member of the same...we might both prevent many diseases and infirmities, which through want thereof would seize upon us, and being overtaken with any, might recover ourselves more speedily...

(Preface, Sig. 2E6<sup>V</sup>)

What is essentially, though, a utilitarian justification for the study of anatomy soon gives way, as the preface unfolds, to the familiar invocation of the moral dimension of the subject. The body, we read, can provide "a notable lesson in good neighbourhood" in that its parts do not "encroach one upon the other as the manner of a great many is, that are not contented with their own estate" (Preface, Sig. 2E6<sup>V</sup>). The disposition of the organs within the human frame acts as a constant reminder of proper behaviour, so that:

when we consider the lungs, which...are placed so neere the heart that they compasse it round about, are not all men thereby admonished, that their speech is but the interpreter of the heart, and the messenger thereof?

(Preface, Sig. 2E6<sup>V</sup>).

In keeping with this presentation of the anatomized frame as a moral spectacle, the author of the preface draws out to the full the political lessons which the body can teach. Curiously, though, what the aristocratic structure of the human body teaches, in the political sphere, is not so much a lesson in degree and humility as it is an illustration of values which, fifty years later, might have been



termed 'Republican' or even 'levelling':

Now if we looke into the middle story of this building, there we shall see that though the heart be the fountaine of life, and the root of all the vitall spirits that are dispersed into every part and member of the body, yet it cannot want either the cool refreshing it hath from the lungs, or the vein-pipes proceeding from the liver, or the mooving strings it hath from the sinewes, or the necessary defence of all the ribbes and bones, which as strong bulwarkes and rampires fence it on every side. Even so fareth it with the great and mightie men of this world; who although in regard of their power and authority over others, they seem to have their lives and livelihoods at their becke and commandment, yet they are so farre from being able of themselves to maintain their honours and high places without the neccessary aide of the inferiour sort, as that without them they should want wherewith to uphold their own lives.

(Preface, Sig. 2E7)

The prince in the commonwealth, then, depends upon inferiors for the maintenance of power in much the same way that the heart within the body is aided and supported both by "noble" or aristocratic organs (the liver) and by a sub-class of features which constitute the defensive capability of the structure (the "ribbes and bones...as strong bulwarks and rampires").

This discussion of the body through a metaphor which works on two levels - architectural and at the same time in terms of the body politic - is continued down through the commonwealth to the lowest classes or features. So, the preface continues, the political dimension of the body:

...appeareth yet more evident in the lower story of this frame, where the guttes and intrailles of the body as it were the sinks of an house have their abiding. For although in regard of their use they may seem to be the basest and most abject parts of the body, yet if we consider the neccessity of them, we shal see that a man may better spare a principall member of his body then the least gut that is in his belly. Even so fareth it with the politicke body of a commonwealth, in which the base ARTISAN will sooner be missed oftentimes, than he that carrieth a greater port, and is advanced to a higher roome and office in the same.

(Preface, Sig. 2E7)

To claim the preface as a proto-Marxist text of the sixteenth century would clearly be absurd. Yet comparing this passage to that other great Renaissance exposition of the commonwealth of the body - Menenius's speech in Coriolanus (I.i) - we can see how the author of the preface has taken the Platonic idea of the state as an organism (see Plato, Republic 5. 462 d) and transformed it. In Menenius's speech the belly, of course, is a consumer. In the preface, on the other hand, the belly is the region which contains the artisans who support the "principall" members of the body - the heart, and, in a strict anatomical hierarchy, the brain and the liver.<sup>47</sup>

The point would seem to be that, for the author of the preface, the anatomized frame of man is a fluid symbol. If it can be pressed into illustrating the importance of the more marginal members of the body politic, it can also, as we have seen, remind the observer of order, degree, and hierarchy. Allied to its fluidity in terms of what it seeks to represent, the body can also be subjected to a metaphorical treatment which is itself un-fixed. It can be thought of, at one and the same time, as a house with architectural features to be admired, and as a political state. Indeed the one conception of the body springs naturally out of the other, once it is understood that the government of such an aristocratic household is itself a representation of the wider state in miniature.

A constant thread in this discussion of the theoretical or methodological dimension of renaissance anatomy has been the observation that the sixteenth century anatomist was unwilling to see his discipline as contributing simple facts of physiology to medicine. Again and again in anatomical texts of the period the thesis is advanced that human anatomy is a worthy subject of study because of



the light it sheds on theological rather than medical issues. Here again, the preface to La Primaudaye's work is very much a text of its age. In fact, the author of the preface argues, a religious understanding of the body's structure is vital to a proper understanding of anatomical structure. The anatomist who dissects without an awareness of the fideistic element latent in his discipline can hardly be termed an anatomist at all. Anatomy is, then, coupled with theology on two levels. The anatomist approaches the corpse with a sense of the theological truths that his dissection may reveal. At the same time, his investigation is of little value if it is not informed with a religious rather than utilitarian spirit:

That we ought to make this use of the anatomical consideration of our bodies, the kingly Prophet DAVID teacheth us most divinely by his owne example, when after a view taken of the admirable work of God in fashioning him in his mothers womb, he breaketh forth with this saying, I WILL PRAISE THEE, FOR I AM FEARFULLY AND WONDERFULLY MADE, MARVELLOUS ARE THY WORKS: AND MY SOUL KNOWETH IT WELL.

(Preface, Sig. 2F)

David's exultation (Ps. 139. 13-14) is a model for the anatomist's response to the body. A hymn of praise is the most fitting record of the anatomist's observations within the body. The preface continues:

And surely unless we tread in the steps of this worthy king and propound this as the scope of all our travels in searching out the severall partes of our bodies, that God our creator and gracious preserver may be praised, worshipped, and feared thereby, we shall never know ourselves aright, and as we ought to do, but rather joyn with the most part of men who not using their skill in this behalf as a ladder to climb up by unto God, stick fast in the very matter and forme of their bodies, so that many of them become mere naturalists and very atheists...because they...follow after some small streames of...knowledge, even such as are polluted with the invention of mans braine...

(Preface, Sig. 2F)

The anatomist who neglects to place his dissection within the context

suggested by the Psalmist, who is not aware of or refuses to be aware of the divine pattern which he traces within the opened corpse, is mis-using his professional skills. Anatomy, in the end, is "a ladder to climb up by unto God". Anchored to the "very matter and forme" of the body, the "naturalist" is unable to begin the ascent to higher truths. He remains earth-bound, or even earth-covered - he "may not unfitly be resembled to moles that are always plodding in the earth" (Preface, Sig. 2F). The body is thus revealed as a sacred structure, and the anatomist stands as the skilled interpreter, guide, and explorer who works within that structure.

#### Conclusion: Anatomy and Methodology

To Du Bartas's rhetorical question "O, how shall I on learned Leafe forth-sett / That curious Maze, that admirable Nett...?" there is, then, no one single answer. Instead, the anatomist at the close of the sixteenth century had a variety of possible methods of analysis from which to choose as he approached the human body. But his choice of any one particular method was usually determined by the type of anatomical text which he wished to produce. A theoretical text such as Vesalius's could stress the architectural nature of the body, whereas a practical manual for dissection, such as Crooke's, was somewhat more limited. The practical text could gesture in the direction of the theoretical method, and could certainly draw on a stock of metaphors peculiarly suited to understanding the body as a construction, but in practice the anatomist was limited by the knowledge that the object of his explorations was subject to decay.

But even if the new anatomy of Vesalius represented an ideal which the dissector in the anatomy theatre could not hope to attain,



the Vesalian method placed a seal of fashionable approval on a set of metaphors which were, in many respects, entirely traditional. Vesalius himself, in the preface to the Tabulae Sex of 1538 (addressed to his patron, Parthonopeus) suggests that it is

not only noble and beautiful but profitable and  
essential to contemplate the ingenuity and  
workmanship of the Great Architect and to examine  
that which Plato calls the 'domicile of the soul'. 48

This architectural conceit was to be transformed into a new methodological approach to the body when Vesalius effectively reversed the traditional order of dissection in the De Humani Corporis Fabrica of 1543.

The situation that existed, then, at the end of the sixteenth century was one where a tradition of metaphorical approaches to the body stretching back to St. Paul, and beyond that to Plato and Aristotle, was given a new lease of life by the very latest product of Renaissance science. To understand the body as a building is to see the human frame in an analogical context (body as city, body as state, and body as domestic household) which is entirely traditional. But it is also, paradoxically, a context which the 'new' science entirely supported.

For De Mornay, Paré, and La Primaudaye, anatomy was a discipline which confronted, with some immediacy, problems with which they were dealing on a somewhat larger scale. Anatomy is a subject whose nature is concerned with division and particularization. It begins with a complex structure, and tries to divide that structure into its 'building blocks'. The encyclopaedia, too, confronted a complex structure - knowledge itself - and tried to divide it into parts so that the structural relationship between one area of knowledge and

another could be properly understood. Hence the weight given to anatomy in La Primaudaye's work.

It is at this point that the whole discussion of methodology and anatomy can be seen to take its place within a much wider debate on method which took place during the Renaissance. Though anatomy in particular, and medicine in general, had their own methodological controversies, the general debate on method in the sixteenth century embraces what has been said here concerning anatomy.<sup>49</sup> For example, Rudolph Agricola's De Inventione Dialectica (published in 1515, and, according to Lisa Jardine, a text-book at Cambridge from the 1530's onwards) closes with a discussion of different methods of ordering material for the purpose of dialectic. Amongst these methods can be found "Natural Order", which includes the "order of existance" (eg genus to species, parts to whole) and "Geographical Order" (west to east, or head to feet). The correspondence between such methods, and that described by, say, Jacob Mosau in A General Practice of Physicke (1598) where the "natural order" of dissection is that which moves down through the body from top to bottom is unmistakable. Again, Agricola's notion of "Artificial Order", a process which "reverses natural order for dramatic or other effect" corresponds to what Crooke was later to describe as the methods by which "art" (ie artifice) takes the body apart "peece and peece...till at length it comes unto the very groundwork". Agricola's discussion of order, incidentally, is by no means unique.<sup>50</sup>

Walter J. Ong, in a somewhat dismissive aside, has observed that medicine in the sixteenth century:

...makes its own special contribution to the collection of spatial models for thought by encouraging the fad of thinking of scientific or quasi-scientific treatises as presentations of "bodies" of knowledge. It also en-



courages the related fad of performing intellectual "anatomies", which are analyses or "dissections" of such "bodies" of knowledge...Lyly's Anatomy of Wit, Nashe's Anatomie of Absurditie, and Burton's Anatomy of Melancholy are well-known English examples of the genre, but this is far more developed in the Latin tradition than the scattered vernacular production would indicate.

51

Whether or not the anatomic explorations of the French encyclopaedia can be dismissed as a "fad" is open to question. At the same time, it is possible to see that what the anatomists themselves had to say about dissecting the human body is itself an expression of an intellectual debate which existed in a much wider context than that bounded by the anatomy theatre.

Instead, by the late sixteenth and early seventeenth century there existed a large body of literature, published in English, which included medical texts, philosophical treatises, text-books of dissection and theological works, all of which saw in this science which was performed in public an illustration of wider intellectual concerns. As a source of metaphors, as a means of ordering knowledge, or as an expression of curiosity about how the natural world was to be explored, anatomy occupied an important position. It remains to be seen how poetry in the period responded to the stimulus of the anatomy theatre.

## Notes

- <sup>1</sup> Guillaume de Saluste, Sieur du Bartas (Du Bartas), The Divine Weekes and Works, trans. Joshua Sylvester, ed. Susan Snyder. 2 vols. (Oxford: Clarendon Press, 1979).
- <sup>2</sup> Boas, p. 132.
- <sup>3</sup> See, for example, Bannester, Historie of Man p. 3. See also William Hill, The Infancie of the Soule (London, 1605): "In the first creation, God having finished the body, like a good architect, accomplished his work in glorie..." (sig. E2<sup>v</sup>).
- <sup>4</sup> Wirtzung, A General Practice of Physicke, sig. A2<sup>v</sup>.
- <sup>5</sup> See J. B. deC. M. Saunders and C. D. O'Malley (eds.), The Illustrations from the Works of Andreas Vesalius, (New York: Dover Publications Inc., 1973) p. 19.
- <sup>6</sup> S. V. Larkey, The Vesalian Compendium of Geminus and Nicholas Udall's Translation. Their Relation to Vesalius, Caius, Vicary, and De Mondeville, (London: Bibliographical Society, 1933) p. 368.
- <sup>7</sup> Charles Estienne, La Dissection des Parties du Corps, (Paris, 1546) p. 7.
- <sup>8</sup> For the publishing history of the Geminus compendium, see Larkey, *passim*.
- <sup>9</sup> A. K. Coomaraswamy, "An Indian Temple: The Kandarya Mahedo," in R. Lipsey (ed.), Coomaraswamy: Selected Papers, 2 vols. (Princeton: Princeton U. P., 1977) II. p. 5.
- <sup>10</sup> William C. Johnson, "The Ruin as Body-city Riddle," PQ 59 (1980) p. 400.
- <sup>11</sup> C. L. Powell, "The Castle of the Body," SP 16 (1919) pp. 197-205. See also: Archie Taylor, "A Metaphor of the Human Body in Literature and Tradition," in Arno Schirokauer and Wolfgang Paulsen (eds.), Corona: Studies in Celebration of the Eightieth Birthday



of Samuel Singer, (North Carolina: Duke U. P., 1941) pp. 3-7.

<sup>12</sup> For a further discussion of the connections between literature and architecture, see: Ellen Eve Frank, Literary Architecture: Essays Towards a Tradition, (Berkeley and Los Angeles: U. of California P., 1979) especially pp. 229-233.

<sup>13</sup> Bannester, Historie of Man, p. 3.

<sup>14</sup> Vitruvius, The Ten Books of Architecture, trans. M. H. Morgan (New York: Dover Publications Inc., 1960) p. 73.

<sup>15</sup> Wittkower writes of the Vitruvian figure that it "...seemed to reveal a deep and fundamental truth about man and the world, and its importance for Renaissance architects can hardly be over-estimated. The image haunted their imaginations." Rudolph Wittkower, Architectural Principles in the Age of Humanism, (London: Academy Editions, 4th ed., 1973) p. 14. See also: William Alexander McClung, "The Matter of Metaphor: Literary Myths of Construction," Journal of the Society of Architectural Historians 40 (1981) pp. 279-288.

<sup>16</sup> Sir Henry Wotton, The Elements of Architecture, (London, 1624) pp. 28-9. Frank (pp. 229-230) has noted later discussions of buildings in terms of features culled from descriptions of the human body.

<sup>17</sup> Sebastiano Serlio, The First (-fift) Booke of Architecture made by S. Serly...translated out of Italian into Dutch, and out of Dutch into English, (London, 1611) Bk. 2 fol. 6<sup>v</sup>.

<sup>18</sup> Giovanni Poalo Lomazzo, A Tracte Containing the Artes of Curious Paintinge, Carvinge and Buildinge, (Oxford, 1598) "John Case Dr of Physicke to his Friend R[ichard] H[aydocke]" sig. \*j.

<sup>19</sup> On Leonardo's anatomical work see: Elmer Belt, "Leonardo the Anatomist," Logan Glendening Lectures on the History and Philosophy of Medicine, series 4 (1955); C. D. O'Malley and J. B. deC. M. Saunders, Leonardo da Vinci on the Human Body, (New York: H. Schuman, 1952); J. H. Randall, "The Place of Leonardo da Vinci in the Emergence of Modern Medicine," JHI 14 (1955) 191-202; K. D. Keele, "Leonardo da Vinci's Influence on Renaissance Anatomy," MH 8 (1964) 342-353; Martin Kemp, Leonardo da Vinci: The Marvellous Works of Nature and Man, (London: Dent, 1981). For anatomical drawings held at Windsor, see: Kenneth Clark, A Catalogue of the Drawings of Leonardo da Vinci...at Windsor Castle, 2 vols. (Cambridge: C.U.P., 1935, rev. ed. 1968-9).

<sup>20</sup> See K. D. Keele, Leonardo da Vinci and the Art of Science, (Sussex: Harvester Press, 1977); Keele, "Leonardo da Vinci's Influence on Renaissance Anatomy" pp. 360-361; Dorothy Koenigsberger, Renaissance Man and Creative Thinking: A History of Concepts of Harmony 1400-1700, (Hassocks: Harvester Press, 1979) p. 61; I. A. Richter (ed.), Selections from the Notebooks of Leonardo da Vinci (London: O.U.P., 1952, rpt. 1980) pp. 150-151.

<sup>21</sup> Carlo Pedretti, The Literary Works of Leonardo da Vinci edited by J. P. Richter, 2 vols. (Oxford: Phaidon Press, 1977) I. p. 228.

<sup>22</sup> Kemp, p. 124. See also Randall's comments on Leonardo's "Anatomy of Nature" in Randall, "The Place of Leonardo" p. 192.

<sup>23</sup> Sir Walter Raleigh, History of the World, (London, 1614) p. 31.

<sup>24</sup> Plato, Timaeus 6. 35.

<sup>25</sup> Pontus de Tyard, Les Discours Philosophiques (Paris, 1587) pp. 124<sup>v</sup>-125. The translations from de Tyard are my own.

<sup>26</sup> de Tyard, Discours p. 125.

<sup>27</sup> Frances A. Yates, The French Academies of the Sixteenth Century, Studies of the Warburg Institute vol. 15 (London: The Warburg Institute, 1947) pp. 95-105. For further information on de Tyard and the general idea of the "encyclopaedia" see: Kathleen M. Hall, Pontus de Tyard and his Discours Philosophiques, (Oxford: Clarendon Press, 1963) pp. 172-5. See also: Kathleen M. Hall, "Pontus de Tyard: A Reply to a Recent Article," in Peter Sharratt (ed.), French Renaissance Studies 1540-1570: Humanism and the Encyclopaedia, (Edinburgh: Edinburgh U. P., 1976).

<sup>28</sup> W. P. D. Wightman, "Cosmological and Technological Trends in the French Renaissance," in Sharratt, pp. 71-2.

<sup>29</sup> Francesco Giorgio, De Harmonia Mundi, trans. Guy and Nicholas Lefevre de la Boderie (Paris, 1579) p. 183. My translation.

<sup>30</sup> A. H. T. Levi, "Ethics and the Encyclopaedia in the Sixteenth Century," in Sharratt p. 179. For further discussion of the Encyclopaedia, and its medieval origins, see: Paolo Rossi, "The Legacy of Ramon Lull in Sixteenth Century Thought," Medieval and Renaissance Studies 5 (1961) pp. 182-213. See also: Franco Simone, "La Notion d'Encyclopédie: Élément Caractéristique de la Renaissance Française," in Sharratt, pp. 234-262.



<sup>31</sup> A translation of La Sagesse was entered on the Stationers' Register on 17 July 1606.

<sup>32</sup> Pierre Charron, Of Wisdome trans. Samson Lennard (London, n. d.) sig. q1<sup>v</sup>.

<sup>33</sup> Simone, p. 252.

<sup>34</sup> Levi, p.177.

<sup>35</sup> Ambroise Paré, The Workes trans. Thomas Johnson (London, 1634) p. 159.

<sup>36</sup> See Ludwig Choulant, A History and Bibliography of Anatomic Illustration trans. Mortimer Frank (New York: Hafner Publishing Co., 1962) p. 159.

<sup>37</sup> Paré's discussion of method can be found on pp. 83-6 of his Workes.

<sup>38</sup> For further information on De Mornay see: Arthur Tilley, The Literature of the French Renaissance 2 vols. (Cambridge: CUP, 1904) II. p. 271. See also: Raoul Patry, Phillipe du Plessis-Mornay: Un Huguenot Homme D'Etat (Paris, 1933). For a bibliography, see: Nouvelle Biographie Generale (Paris, 1859) vol. 36 pp. 617-625.

<sup>39</sup> Phillipe de Mornay, Of the Trewnesse of the Christian Religion trans. Arthur Golding (London, 1587) p. 96. The Platonist notion that De Mornay dismisses is that which holds that the world of the senses is of a second order of reality (See Plato, Timaeus 3. 28-9).

<sup>40</sup> Phillipe De Mornay, The True Knowledge of a Mans Owne Selfe trans. Anthony Munday (London, 1602) p. 12.

<sup>41</sup> See Bamborough, pp. 54-7.

<sup>42</sup> For an account of the complicated publishing history of La Primaudaye's work, see Yates, French Academies pp. 123-4.

<sup>43</sup> Pierre de La Primaudaye, The French Academie trans. Thomas Bowles, R. Dolman, and W. P. (London, 1618) p. 1.

<sup>44</sup> The distinction between similar and dissimilar parts was an important one for the Renaissance anatomist. For a contemporary account, see: Peter Lowe, A Discourse of the Whole Art of Chirurgerie (London, 1602) ch. 7; Thomas Gale, Certaine Workes of Galens (London, 1586) p. 25.

<sup>45</sup> For an account of Drummond's collection of medical works (including the works of La Primaudaye, De Tyard, Galen, de Chauliac, Fernel, and Summonius) see R. H. MacDonald, The Library of Drummond of Hawthornden (Edinburgh: Scottish Academic Press, 1971).

<sup>46</sup> Sir John Davies, Poems ed. Robert Kreuger (Oxford: Clarendon Press, 1975) p. 326. References to Davies' poems are to this edition.

<sup>47</sup> For a discussion of the metaphor of the "Body politic" see: David George Hale, The Body Politic: A Political Metaphor in Renaissance England (The Hague: Mouton & Co., 1971).

<sup>48</sup> Quoted in Saunders and O'Malley, p. 234.

<sup>49</sup> On "method" in anatomy and medicine see: J. H. Randall, "The Development of Scientific Method in the School of Padua" JHI 1 (1940) 117-206; C. E. Kellest, "Sylvius and the Reform of Anatomy" MH 5 (1961) 101-116; W. P. D. Wightman, "'Quid sit Methodus?' 'Method' in Sixteenth Century Medical Teaching and 'Discovery'" JHM 19 (1964) 360-376. On "Method" in general in the Renaissance see: Neal W. Gilbert, Renaissance Concepts of Method (New York: Columbia University Press, 1960) ch. 5; Patrick Grant, Literature and the Discovery of Method in the English Renaissance (London: Macmillan & Co., 1985).

<sup>50</sup> See Lisa Jardine, Francis Bacon: Discovery and the Art of Discourse (Cambridge: CUP, 1974) pp. 33-4.

<sup>51</sup> Walter J. Ong, Ramus, Method, and the Decay of Dialogue (Cambridge, Mass.: Harvard U. P., 1958) p. 315.



Chapter Three: "A Strange Though Native Coast": The Purple  
Island of Phineas Fletcher.

## Introduction

The aim of this chapter is to begin to offer some account of the relationship between the writings which have been examined in the previous chapters and poetry of the period. In attempting to trace that relationship I hope to give a sympathetic account of what has been described as the strangest poem in existence - The Purple Island of Phineas Fletcher.<sup>1</sup> By placing (or re-placing) Fletcher's poem within an anatomical context I hope to show how the language, and ideas of the anatomists came to be taken up by poets. At the same time perhaps a little of the strangeness of Fletcher's epic of the human body might be dispelled.

In Chapter Two I tried to provide some sort of intellectual context for the study of anatomy. In turning to The Purple Island, published in 1633, a rather different context for anatomy begins to emerge, and one that I believe can be termed poetic. The problem for The Purple Island has been (and probably always will be) that it has been read, almost without exception, as a poem which stands in literary isolation. Sir Edmund Gosse's remarks, published at the end of the last century, can be taken as representative:

When we recover from the first shock of the plan,  
we have to confess The Purple Island to be extremely  
ingenious, cleverly sustained, and adorned as  
tastefully as.... an unseemly theme can be by the  
embroideries of imaginative writing.

He continues that "this strange anatomical ditty" is a work which "resembles none other in our language" but which expresses a theme "of unusual ugliness and aridity".<sup>2</sup>

Gosse's estimation also points to another problem associated with



the poem - its "cleverness". To say of it that it is "clever" is to see it as an exercise in the lumpy welding together of scientific ideas and imaginative writing. This aspect of the poem - its clever expression of contemporary ideas on human anatomy and physiology - has attracted attention which is marginally more sympathetic. But such action has resolved itself around addressing the question of the correctness or incorrectness of Fletcher's ideas when tested against the ideas of his scientific contemporaries.<sup>3</sup> The other type of attention which has been directed towards the poem is one that raids the "intracacies of its twelve cantoes and seven hundred stanzas" for sources - in particular Miltonic sources.<sup>4</sup> Though the poem may be a hunting-ground for Miltonic source-hunters, no better idea of the work is thereby conveyed. It is not the intention of this chapter to place Fletcher's poem on a pedestal which criticism has denied it. But the poem can be understood as a poetic expression of some of the wider themes with which this study is concerned. As such it may stand revealed as less of "an incongruous dragon" than it has appeared to be in the past.<sup>5</sup>

### Precursors of the Purple Island

In the previous chapter a pattern of metaphors, based on an architectural understanding of the human body, seemed to emerge. Fletcher's poem, in much the same way, moves through a pattern of metaphors which are architectural in the first instance, but which also stress (as did the architectural conceits) the social and political nature of the building of the body. An important point to keep in mind, however, is the possibility that the poet and the anatomist develop a symbiotic rather than parasitic relationship. That anatomy might inform poetry could, perhaps, be expected. But that poetry might inform anatomy is

a possibility which, on the surface, would seem a little more remote. The Purple Island, however, is the product of just such a symbiotic relationship. Its design is to show the reader not only the possible union between a scientific subject and Christian epic, but also to explore the scientific subject for its own sake. As such the poem is didactic in that it sets out to teach Christian virtue, but it is also didactic in the same manner in which Lucretius's On the Nature of the Universe is didactic. Anatomy in the poem can be thought of as both the field of imagery through which the verses move, and an object of enquiry in its own right towards which the verses are directed.

That poetry and anatomy could be related in such a way is illustrated by Helkiah Crooke's anatomical text-book. In the preface to the twelfth book of Microcosmographia, the penultimate book of Crooke's work, a summary of the scope of the text's anatomical enquiries is offered. This summary, it is clear, is a response to a poetic understanding of the body rather than to a strict understanding based on information revealed through dissection:

Our Webbe now weares neare the threds. The glory and beauty of this stately mansion of the Soule we declared in the first Booke. The outward walles we dismantled in the second. The Cooke-roomses & Sculleries with all the houses of office and roomes of repast we survayed in the thirde. The geniall Bed and Nursery we viewed in the fourth and fift. In the sixt we were ledde into the riche parlour of pleasure wherein we were entertained by a bevy of Damzels, one Modest as modesty itselfe, another Shamefaste, another Coy, another Jocund and merry, another Sad and lumpish, and a world of such Passions we found inhabiting in the little world...From thence we ascended in the seaventh booke by staires of Ivory into the presence chamber, where the Soule maketh her chief abode; there we saw the counsell gathered, the records opened, and dispatches made and signed for the good government of the whole family...Now we are arrived near the principals of the building, where we may see how they are joined, how they are fastened, and bound together, how they are covered and defended...And finally in the next and last booke wee shall with God to friend come unto the principals themselves and to the very foundation and groundworke whereon the whole frame is raised.

(Microcosmographia p. 907)



The "principals" towards which Crooke is ushering his reader are, in keeping with the architectural metaphor, the bones which support the building of the human frame. But in recalling the anatomical journey which the reader has made within the mansion of the body, Crooke appears as a surveyor, an anatomist, a demolition worker, and, at the same time, a reader of The Faerie Queene. For it is Spenser's House of Alma (FQ II.ix), rather than any dissected corpse, to which this passage is indebted.

The order of description in Crooke's text exactly mirrors the order in which Arthur and Guyon see the various chambers of the House of Alma - stomach, heart, and finally head. In other words, Spenser is following the anatomical order of practical dissection, where the three cavities of the body are investigated according to the rate at which they decay. If Spenser and Crooke are both following the received anatomical method of investigation, the linguistic parallels also reveal a shared method of procedure. Guyon and Arthur, in The Faerie Queene pass from a "kitchen-rowme" (st.28), not unlike Crooke's "Cooke-roomes" into the heart which Spenser describes as a "goodly parlour" (st.33), and Crooke terms a "riche parlour". Within the heart Arthur and Guyon meet "a lovely bevy of faire Ladies" (st.34) who have a more than passing resemblance to Crooke's "bevy of Damzels". These allegorical figures, the passions or affections, include amongst their number one whom Crooke describes "Modest as modesty it selfe" and "another shame-faste". Presumably the anatomist had first met these two in the guise of a single person, introduced by Alma as "Shamefastnesse it selfe" (st. 43). From the heart both Spenser and Crooke move on upwards to the head. Methods of ascent and descent within the frame-work of the body in the two texts are identical, being the spinal vertebrae, though there is some confusion as to the precise nature of

the building materials which have been employed. Spenser has Alma conducting her guests to the "stately Turret" by an ascent of "ten steps of Alabaster wrought" while Crooke's reader makes the ascent by "staires of ivory". Reading Crooke's description it is as if the anatomist had in front of him an opened copy of The Faerie Queene rather than the notes and drawings derived from dissection.

Certainly, in an earlier passage of Microcosmographia Crooke did indeed have a version of The Faerie Queene before him, since he quotes the famous arithmetic stanza from the poem (II.ix.22) as a preface to his second book ("Of the Whole Bodie & Lower Belly").<sup>6</sup>

The relationship between Crooke's summary of his anatomical text and the House of Alma passage from The Faerie Queene helps to provide a context in which to understand the production of a poem such as The Purple Island. An anatomist such as Crooke saw nothing incongruous in turning to an epic poem to uncover handy epithets or useful turns of allegory. Essentially, Fletcher's poem provides a synthesis of epic and anatomy, reversing the process which Crooke had explored. If an anatomist can offer poetry (or paraphrased poetry) to his readership, then the poet, too, can offer anatomy. In both cases the poetic text and the scientific text refuse to acknowledge any absolute division between the two forms of discourse.

Spenser's House of Alma, in its own right, is obviously of enormous importance to Fletcher, though it was Du Bartas who had first pointed the way into the human frame via poetry in the period. The House of Alma, though, is the true progenitor of Fletcher's poem, an ancestry which is acknowledged in The Purple Island when Fletcher has Spenser recorded next to Virgil in the poem's allegorical treatment of memory (a treatment which is itself derived from the Spenserian model):



Therefore Eumnestes in his lasting shrine  
 Hath justly him enroll'd in second place:  
 Next to our Mantuan poet doth he rest;  
 There shall our Colin live for ever blest, 7

(P.I. VI.52)

Fletcher's praise of Spenser and his "well taught song" (P.I. I.19) has been, of course, echoed by modern commentaries on The Faerie Queene II. ix. Alistair Fowler has described it as the "core canto" of Book II "...an extended allegory of human nature." <sup>8</sup> But in terming it an "allegory of human nature" there is the danger that we might begin to forget that, in the end, this is the human body which is being described. As Harry Berger points out "Alma's castle is a body, and it cannot be repeated too often that, before they are anything else, all the powers described in canto ix are powers of the body." <sup>9</sup> Similarly, Anthea Hume has felt it important to emphasize this, the physical element, in the treatment of "...the potential beauty and worth of the body if it is rightly used." <sup>10</sup>

Despite the numerical, allegorical, or symbolic possibilities of the canto, if it is once forgotten that Spenser has the human body in mind, then much of the point of this section of The Faerie Queene is lost. <sup>11</sup> Anthea Hume's comments on the experience of reading the House of Alma passage, and keeping the human body in mind, might equally apply to reading the whole of the first half of The Purple Island:

While the reader's mind is occupied in identifying the sections of the face and body denoted by the castle images, a pleasure created both by the experience of recognition and by the writer's ingenuity accompanies the survey. Very familiar features are in this way made new, and a delight stirred by poetic invention is attached to the contemplation of what are otherwise extremely well-known facts. 12.

In other words, the underlying conceit of the House of Alma is to

make strange that which, normally, is so familiar it is virtually overlooked. This device, which might be termed Spenser's de-familiarization of the body through allegory, introduces an element of comedy into the passage. The reader is not alone in facing an unfamiliar but familiar structure, since that is exactly the experience of Guyon and Arthur as they tour the body. As Anthea Hume points out, the reader enjoys an "experience of recognition" as the tour unfolds, but Spenser denies that experience to Alma's guests. At no point, as the canto unfolds, are Arthur and Guyon allowed to perceive the structure through which they move as anything other than the castle of Alma. Keeping Alma's guests in wilful ignorance of the ambiguous nature of the structure through which they move reaches its comic heights in stanzas 32 and 33.

These stanzas, as Berger has noted, can be compared to the stanzas in Book II canto vii which describe the refinery of Mammon. The presentation of Arthur, as he approaches Mammon's cave is one that stresses the knight's wonder at the unusual sight: "...th'Elfin knight with wonder all the way / Did feed his eyes, and fild his inner thought." (II. vii. 24). In much the same way, Arthur and his companion are filled with wonder when they reach the exit of Alma's dwelling, a wonder which brings together the entrance of Mammon's cave and the "back-gate" of the body/building:

Which goodly order, and great workman's skill  
 Whenas those knights beheld, with rare delight,  
 And gazing wonder they their minds did fill;  
 For never had they seene so straunge a sight.

(II.ix.33)

Gazing, from within the body, at the body's natural functions is an experience which induces "rare delight" in the contemplation of "so straunge a sight". The point is, of course, that the close



inspection of the body's structure does reveal an intricate system, and that a tour through the sewers (just as a tour through a modern city's sewerage system) can prove to be of interest not just to the sanitary engineer. The comedy, though, resides in the fact that the feature from which the knights are receiving moral instruction in the "great workman's skill" is the anus, an incongruity which Arthur and Guyon are not allowed to appreciate, but which the reader cannot avoid.

The body, then, has been rendered unfamiliar, strange, an unknown territory through which one can move only with the help of a guide to point out its special peculiarities. Fletcher, who had read his Spenser with care, employs a very similar technique in The Purple Island. Indeed, it is the business of the poem to make strange, through comparison, that which otherwise is almost too well-known.<sup>13</sup> The point is made explicitly by the narrator of The Purple Island, Thirsil, in the first canto of the poem:

Heark then, ah heark, you gentle shepheard-crue;  
 An Isle I fain would sing, an Island fair;  
 A place too seldome view'd, yet still in view;  
 Neare as ourselves, yet fatherest from our care;  
     Which we by leaving finde, by seeking lost;  
     A forrain home, a strange, though native coast;  
 Most obvious to all, yet most unknown to most:

(P.I. I.34)

Thirsil's task, as the poem unfolds, is to unravel this series of paradoxes, but also to force home the paradoxical nature of the structure which he is to describe. Man, or the island, can only be known properly if we first view it with a foreign eye and see it, like Arthur and Guyon, as a structure never before examined.

Thirsil's paradoxical introduction to his theme also hints at a further element in the poem's overall design. To "finde" the body again, he claims, it is first necessary to leave it, to approach it

as we might a previously unexplored coast. But it is not only the body which is to be sought in The Purple Island but the whole Christian doctrine of redemption and salvation. Within the stanza's play of paradoxes which coalesce around the theme of finding and seeking, lies a deeper layer of meaning which becomes apparent as the poem unwinds. At this stage of the poem this element is touched upon only through the word-play in the line "Which we by leaving finde, by seeking lost" a line which is itself redolent of the "loss" of the Fall (itself a "seeking" after knowledge) and the finding of redemption even as the Garden of Eden is left.

This, though, is to anticipate the argument of Fletcher's poem. Before exploring that argument further, it is necessary to complete the picture of the context out of which The Purple Island emerges. Spenser forms one part of that context, but The Faerie Queene is by no means the sole precursor of Fletcher's poem. When The Purple Island was completed, some time prior to 1611 a number of poetic treatments of anatomy were already in existence.<sup>14</sup> Spenser and Du Bartas, the first to have explored, if only in passing, the imaginative treatment of the anatomized human body, initiated a fashion which hovers on the edge of emerging as a recognizable poetic genre.

The type of work which such a fashion gave rise to is represented by David Kynaloch's De Hominis Procreatione. The full title of Kynloch's work, a didactic poem, written in Latin, and published in Paris in 1596, gives some indication of the scope of his undertaking - De Hominis Procreatione, Anatome, ac morbis internis priores libri duo Heroico Carmine donati. Kynaloch's two books of heroic verses on the anatomized body comprise a full, poetic, discussion of the body, organized in chapters dealing with the various "ventricles" of the



human frame. Thus chapter VIII examines, for example, the liver ("De Heptatis"), and chapter IX the kidneys ("De Renum"), both forming part of the second book of Kynaloch's work.

Book 1 opens with a description of the macrocosm and the microcosm, before moving on to the creation of man ("Prima hominis creatio a Deo"). A distinctive feature of the work, and one which brings The Purple Island to mind, is the author's use of marginal notes. Fletcher, in The Purple Island, provided just such marginal notes to substantiate his allegory of the body. They provide, to some extent, the evidence for the subjects which the poetry moves through. For Fletcher's modern readers, these notes have represented something of a problem, since they seem to take the work outside the boundaries of fiction, and into a separate area of discourse which seems to be more "scientific" than "imaginative". But Kynaloch's work employs just such a device, though his marginal notes tend to be both anatomic and artistic. Thus, the marginal note can act as an index to what the poem is discussing - "Causae electionis seminis" (I. p.6) for example. It can cite an authority, or refer the reader to another work - "Vide Anatome And. Laurentij." (I. p.15). But the notes also serve to draw attention to the purely artistic elements of the poem. "Ad Hymenaeum apostrophe" (I. p.6) alerts the reader, for instance, to poetic praise on a somewhat unlikely topic.<sup>15</sup>

Kynaloch's poem owes much to a school of poetry which seems to have flourished briefly in the early seventeenth century, and which set out to praise God through a poetic summary of his works. Man, as the chief accomplishment of creation, figures largely in these poems. The nature of these poems can be categorized as long (often tortuous) verse catalogues of the natural world. They can be considered as a

poetic version of the encyclopaedias of the late sixteenth century. The promised range of these works was enormous, as John Hagthorpe's Visiones Rerum illustrates. Visones Rerum (London, 1623) is described on the title-page as:

The Visions of Things. Or Foure poems. 1. Principium & Mutabilitas Rerum. Or, The beginning & mutabilitie of all things. 2. Cursus & Ordo Rerum. Or, Art & Nature. 3. Opineo & Ratio Rerum. Or, Wealth & Povertie. 4. Malum & Finis Rerum, or, Sinne & Vertue, concluding with the last Iudgement and end of all things. Wherein the author expresseth his invention by way of dreame.

Hagthorpe's verse treatise, embodying a curious mixture of science, meditation, prophecy, and Biblical exegesis, is mirrored by other works of the period. Amongst these are John Norden's Vicisitudo Rerum (London, 1600) which describes itself (on the title-page, once more) as "An Elegaicall Poeme, of the interchangeable course and varietie of things in this world". Norden's poem was followed by a sequel - The Labyrinth of Mans Life (London, 1614) - which addressed itself to a similar topic. A contemporary of Norden's, Henoeh Clapham, pastor of the English congregation in Amsterdam in the late sixteenth century, produced a verse treatise on much the same lines as those of Hagthorpe and Norden when his Aelohim-triune (London, 1601) appeared. Clapham's work begins with the first day of creation, and then moves on to discuss, in pseudo-rationalist terms, the creation of time and place, of water and land, and light.

To some extent, these works appear to be attempts at offering popular accounts of scientific discovery, whilst at the same time bringing those discoveries into harmony with the revealed truth of scripture. The audience at which these treatises were aimed was not assumed to be an educated one, as Norden makes clear in his



Labyrinth of Mans Life:

Some will content to hear thee speake plaine,  
That long to learne, and be not superfine:

(Sig. A3)

but their purpose was clearly didactic. They represent a populist attempt to bring the new habits of thought to an audience without formal university training. Norden's Vicisitudo Rerum, for instance, offers a meditation on a topic which Donne was later to contemplate when he considered "New Philosophy":

Yea, THINGS aloft of th'moving FIRMAMENT,  
Are seene to alter by TIMES swaying hest,  
the HEAVENS SPHERES, BODIES circumferent  
Are not as earst, but in their course opprest.

(Sig. A3)

Within these rambling verse mediations on the Divine plan, science, and scriptures, man is a central figure. In a conceit reminiscent of the architectural metaphors of the anatomists, for example, Hagthorpe, in an earlier work entitled Divine Meditations (London, 1622) considers man as a town "fortified well / With circling walls & high built citadell" (p. 15). But more often than not it is to the familiar correspondence of microcosm and macrocosm to which these poems turn:

How much unlike this greater World seems to be  
Unto this little world in quantitie?  
And yet in qualitie how neere they come  
Within the compasse of (a) comparison.

(Hagthorpe, Divine Meditations p. 82)

The footnote (a) refers the reader to the authority for Hagthorpe's comparison - in this case Galen's De Usu Partium. A poet such as Hagthorpe could move through several pages of point by point comparison of the microcosm and the macrocosm, supporting each of his similitudes by an appeal to the appropriate scientific or scriptural

authority.

With the poetry of John Davies of Hereford (?1565-1618) a further aspect of the context out of which grew The Purple Island can be discerned. Amongst Davies of Hereford's vast corpus of writing, three poems stand out.<sup>16</sup> These are the three long philosophical treatises entitled, respectively, Mirum in Modum (London, 1602), Microcosmos (London, 1603, with further editions of 1605 and 1611) and Summa Totalis (London, 1607). Of these poems, the first two - Mirum in Modum and Microcosmos - contain extended anatomical sections. In Mirum in Modum the anatomical section is confined to a verse anatomy of the brain, which is designed as a type of preface to the theological and philosophical discussion of the powers of the soul which occupy the major part of the poem. In Microcosmos attention is directed towards the anatomy of the thorax, and, especially, the heart. The two poems, published in successive years, can be thought of as an attempt at presenting a unified philosophical examination of the powers of the mind. Mirum in Modum concentrates on the rational power, whilst Microcosmos deals with the affections. Summa Totalis, which claims to be "an addition to Mirum in Modium" (title-page, 1607 ed.), is patterned on a "divine week" and represents an attempt to bring the structure of the two earlier poems into harmony with the

ion.

In scope these poems seem to mirror the programme undertaken by the French Encyclopaedists. They are of the natural world, a mixture of science and theology, which eventually seem to disintegrate under the sheer weight of information which the verses seek to convey. The influence of Du Bartas, and the Encyclopaedists (in particular De Mornay and La Primaudaye), as well as the example of



Sir John Davies' Nosce Teipsum on these poems has been noted.<sup>17</sup> Given the importance attached to anatomy in the Encyclopaedic programme, the presence of the subject in Davies of Hereford's poetry should be no surprise.

But what is surprizing is the detail with which Davies of Hereford is willing to pursue his anatomic investigations. In Mirum in Modum, for example, Davies describes the brain as:

...caves or cells distinguisht with skinne,  
Or subtill Membranes, and so being divided,  
the Head is like a house, that is within  
To many rowmes, or chambers subdivided,  
Vaulted with Bone, and with Bone likewise sided,  
The skinne that rafters, or else lines the roofe,  
Is hard, for durance, and thick, to enwall  
Which is the skinne of skinnes, a skinne of Proofe,  
That Dura Mater loe, the Latines call  
For it enwombs the rest from dangers all.

(Mirum in Modum, Sig. B2)

18

How can this attention to anatomic detail in Davies' poetry be accounted for? There is no single answer. In part, Davies is responding to the example of the Encyclopaedic authors. In part, too, it is a literal response to the patterns of enquiry suggested by Davies of Hereford's namesake, Sir John Davies, in his Nosce Teipsum (1599):

All things without, which round about we see,  
We seeke to know, and have therewith to do:  
But that whereby we reason, live, and be,  
Within our selves, we strangers are theretoo.

(N. T. 89-92)

Just as in Spenser's account of the body, and just as Fletcher was to illustrate, it is the potential strangeness of the human frame which has caught Sir John Davies's imagination. But whilst a poet such as Davies (or Donne, in the 'Anniversary' poems) could evoke this foreign element in the understanding of the body as itself a metaphor for human ignorance, Davies of Hereford is anxious to dispel doubt and

uncertainty. Hence his attention to detail. Like a true Baconian ("Order requires that we particularize" he writes in Mirum in Modum (sig. B<sup>V</sup>) Davies of Hereford amasses a catalogue of information and observation. No fact is too humble, or mundane, to escape the poet's eye. It was a failure to attend to such detail which Bacon, in 1605, was to announce as one of the chief defects of anatomical study hitherto:

...they inquire of the parts, and their substances, figures, and collocations; but they inquire not of the diversities of the parts, the secrecies of the passages, and the seats or nestlings of the humours... 19

Certainly, Davies of Hereford could hardly be accused of neglecting to record the "secrecies" of the body. His discussion, in Microcosmos, of the structure and function of the heart is exhaustive - as though the author envisaged his work being read as a medical text rather than a poem. Not content with a mere description of the heart's appearance and function, Davies of Hereford enters into the controversy surrounding the passage of blood through the septum by means of a "door" hardly visible to the eye (Microcosmos, p. 29).

The scrupulous attention to detail revealed in Mirum In Modum and Microcosmos might lead the reader to expect an exhaustive treatment of the anatomy of the complete body. Such an expectation might be confirmed once the anatomical methodology - the order of dissection - is grasped by the reader. But, even though the poetry seems to move in an ordered manner from the head to the thorax, the anatomy is incomplete - the abdomen is not dealt with. Just as Du Bartas had turned his investigation over to the "skillfull sonnes of Aesculapius", so Davies of Hereford calls upon more qualified practitioners:



...referring it unto Anathomists,  
 Who marke each Mortresse of the Bodies frame  
 The Pynns, the Tenons, Beams, Bolts, Windings, Lists,  
 All which they marke when they doe it unframe:  
 To these Crafts-masters I referre the same;

(Microcosmos, p. 83)

Anatomy, like carpentry, is a specialized craft. The timber construction, analogous to the human frame, may be taken apart methodically by specialists versed in the complexities and vocabulary of their trade. It is as though Davies of Hereford wants to emphasise the specialist nature of the undertaking by invoking a language ("mortresse", "tenon", "lists") appropriate to a trade less foreign to his lay readership. The carpentry of the body, though, is a metaphoric field which Davies visited more than once. In "The Picture of Formosity", a love poem published in the collection of sonnets, pastorals, and odes gathered under the title Wittes Pilgrimage (c.1605/6), Davies of Hereford catalogues his mistress's body. The poem moves, conventionally, through the various parts - hair, head, nose, lips, teeth, tongue, and so on - but also includes a visit to the woman's spine:

There lock the side-railes of this totall Frame  
 Within a Proppe, that upright holds the same:  
 And, for that Propp of many joyntes consists  
 It seemely stands or bowes which way she lists.

(Wittes Pilgrimage, Sig. N3)

The retreat into joinery and carpentry in Microcosmos signals more than a sense of the poem's growing unease with anatomical language.

There comes a point, then, in Davies of Hereford's division of the human frame, when a concentration upon the details of the body's structure gives way to an assertion of the body's significance. That assertion is couched in the language of the microcosm, and informed by the Platonic idea of the 'World-soul' :

God is a Sp'rite, the World a Body is,  
 Both which in Man are plaine Epitomiz'd:  
 Of God hee's Abstract in that Soule of his,  
 And in his Corps the World is close compriz'd:  
 As if the divine Wisedome had devis'd  
 To bring into a Center's center all...

(Microcosmos, p. 85)

It may not be unjust to think of poets ("versifiers" being a rather harsher description) such as Norden, Hagthorpe, and Davies of Hereford as the popularizers of ideas which increasingly were becoming the preserve of specialists. The fact that the enormous bulk which is Microcosmos went through three editions in eight years certainly suggests that this type of writing catered for a substantial<sup>†</sup> readership. But it is still difficult to define exactly what these poems are. Indeed, the term verse treatise is perhaps a more accurate indication of their status.

The real point of correspondence between these poems and The Purple Island is in respect of their subject matter - the body - and the manner in which they seek to present before the reader a mass of scientific, quasi-scientific, and theological or philosophical speculation and observation. Where they differ from Fletcher's poem is in their refusal to acknowledge any formal structure or organization of their material. In contrast, The Purple Island brings a poetic organization of its material to the fore. Firmly set in the pastoral mode, the rules of the pastoral govern each of its many closures. Canto 4, for example, deals with the anatomy of the thorax. It is a short canto of only 33 stanzas. The actual anatomy ends (in stanza 32) with a description of the oesophagus and the epiglottis. The final stanza returns us to the world of the poet/shepherd whose creation the poem is:



But see, the smoak mounting in village nigh,  
 With folded wreaths steals through the quiet aire;  
 And mixt with duskie shades in Eastern skie,  
 Begins the night, and warns us home repair.

(P. I. IV 33)

Thus Thirsil, the narrator, concludes the anatomy of the "middle coast" of the island-body with a Lycidas-like flourish, and withdraw<sup>a</sup>l:  
 "Home then my full-fed lambes; the night comes, home ~~a~~pace." As we shall see, however, Fletcher had more than pastoral convention in mind in structuring his material so carefully.

There is, however, one other poem which bears a resemblance to The Purple Island. The Little World of Robert Underwood first appeared in 1605, and was reissued in 1612.<sup>20</sup> The author's own description of the work is as follows:

A NEW ANATOMIE, or, A description of the whole Body of man, after an unwonted manner: No lesse pleasant to the Reader, than profitable to the Regarder.

(The Little World, p. 1)

The phrase "for practice Necessarie" implies (somewhat optimistically, it is true) that the author envisaged his poem as being comparable to a medical text-book. In other words, the poem is not dissimilar to the work of Davies of Hereford or Hagthorpe, in that it seeks to convey information as well as to delight the reader with its invention. A second question is raised by the distinction the author makes between a "reader" of his poem, who will find the work "pleasant", and the "regarder" who will find it "profitable". The distinction would remain a meaningless one, were it not for the possibility that Underwood (if he is the author) has in mind a professional and a non-professional audience. The "regarder" is the reader who possesses a professional interest in anatomy, either as a practi<sup>ti</sup>oner or (more

possibly) as a student. It is as though the author envisages his poem being taken up not by the casual reader, but by a "regarder" fresh from watching an anatomy performed.

A further element which The Little World shares with Kynaloch's De Hominis and Fletcher's The Purple Island, and which has already been alluded to, is the use of the marginal note. Again, to the modern reader, these notes represent something of a problem. They indicate a level of uncertainty as to the type of discourse with which the poem is engaged, compounded by the sense of there being no more than clumsy attempts at ensuring that the reader gets the point. So, the lines:

But under it a Fountaine was,  
out of the which did flow,  
A lickuor very like to redd  
or Claret Wine in show:

(The Little World, p. 6)

carry the marginal note "The Lyver" and "The Blood". The point, however, is that with the help of these marginal notes, the verses are endowed with an authority within the professional sphere which they might not otherwise possess.

The notes may have another function which they do not share with The Purple Island, and that is to act as an index. The Little World is a descriptive anatomy of man, but it is also (and here it can be compared to the work of Norden, Hagthorpe, or Davies of Hereford) a series of popular treatises covering such topics as "A Remedie for the Stone" (p. 5), "The Trembling of the heart... A Remedie for the same." (p. 9), autobiography (a revealing note on page 11 tells us that "The Author is heere forbidden to deale in Physicke"), and the arts of divination (no less than seven pages are devoted to "A degression to the Arts of Phisognomie"). Given this mass of information, it comes



as something of a relief to the reader to learn that it is possible to traverse the poem's subject matter (which covers 45 pages) with the help of a type of primitive index.

In other aspects, though, this otherwise forgettable work brings to mind the later poem of Phineas Fletcher. Firstly, it has been noted that The Purple Island operates within the constraints of a given poetic form - the pastoral mode. The structure of the poem is determined not by any arbitrary division of the material into sections, but by the seemingly 'natural' device of the amount of time which the fictional narrator, Thirsil, requires to tell his story of war, and redemption. The poem's fiction, in other words, appears to order its material. The Little World, by the same token, is determinedly 'literary' in its narrative form. The author, just as Fletcher was to do, employs an entirely literary device to open his catalogue of information. But if The Purple Island is indebted to the rhythms of the pastoral, The Little World owes its allegiance to a different form altogether - the Dream Vision.

The Dream Vision - a form more usually associated with texts such as Chaucer's Boke of the Duchesse, or Langland's Piers Plowman - informs the opening of The Little World:

Late in the night, not long agoe  
 as I lay in my bed,  
 Musing alone of many things,  
 which then came in my hed:  
 Were it by Revelation,  
 by Vision, or by Dreame:  
 Or yet as lying in a traunce,  
 or by some other meane,  
 I knew not well: but yet mee thought,  
 as it were suddainly,  
 One caught me up into the Aire,  
 from whence I did discrie  
 A Cittie large, of bignes such,  
 as it the World had beene:  
 A thousand thousand Houses there,  
 a man might well have seene:

(The Little World, p. 1)

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Here are the familiar elements of the medieval dream poems. The narrator/dreamer is unable to sleep, he is solitary, and when the dream begins, as he recalls it, he is confused as to its real nature. The vision, or revelation, granted to the dreamer in The Little World is of a city of infinite size, and numberless buildings. In other words, it is a vision of the world which is offered in this opening, corresponding to a similar vision which Langland describes in the opening of Piers Plowman.

This visionary opening, or this glance back at an older poetic form, mirrors Fletcher's use of an equally conservative poetic device in locating his poem in the realm of pastoral. Here, we reach a second point of similarity between the two poems. The city which the dreamer sees in The Little World is, in fact, not a city at all. It is, instead (as a marginal note tells us) "The people or the bodyes of men" (p.1). Each house, which makes up the city, or human society, is to be understood as a body. In The Purple Island the body is imagined as a social and geographic entity - the island being the body imagined in its totality, the principalities within the island corresponding to the various anatomical regions of the body. In both accounts of the body, an attempt is made to preserve the sense of the body's correspondence to an organic community, existing within a social and political sphere, whilst, at the same time, it is also presented as an architectural structure. This creates disturbing anomalies within both texts. In The Little World, for instance, we are asked to imagine the body as a building with the usual features of a domestic construction: pillars, chimneys, turrets, windows, and kitchens. The term of the metaphor function well enough for as long as the body is considered in isolation from its surroundings, but what happens when the poem turns its attention to some of the body's organic functions, in

particular reproduction? Can buildings reproduce? The answer is that they can, but only in a rather vague, unspecified fashion:

If any Houses did decay,  
as oftentimes there did:  
Then presently an other House,  
was raised in his stead.

(The Little World, p. 3)

For Fletcher, dealing in islands rather than buildings, the problem of the sexual relationships of land-masses would seem even more intractable. Having imagined man as an island, how is he to describe the problem of reproduction? Fletcher refuses to shirk the difficulty, or gloss over the details. Instead, he evokes the biblical story of the creation of man, and refers us to the fictional geography of the Symplegades - islands to be found, he says, in the Bosphorus. These elements are inter-woven to produce the account of the creation of a (moving) female second island, named Thelu, out of the original (also moving) male island, called Arren. These islands move together to produce a third:

For often meeting on the watrie plain,  
And parting oft, tost by the boist'rous main,  
They are now joyn'd in one, and now disjoyn'd again.

(P. I. III. 28)

Fletcher's allegory of sexual union (quite apart from the notion of moving islands) possesses a random quality which his fiction of the male and female islands underlines. The union of the islands seems to be determined as much by prevailing sea and weather conditions as it does by any effort of will on the part of the allegorized body.<sup>21</sup>

It is not the case, however, that Fletcher and the author of The Little World are ignorant of the problem. In a sense, the reader's questioning of the 'realism' or 'accuracy' of the metaphors



deployed is a question which neither text need admit, since all accounts of the body in both poems are already hedged about by a fictional status. We can begin to understand why both these poems are so careful in making the reader aware of the narrative devices to which they are indebted - pastoral and the dream vision. For in both these poems the narrative form is interposed between the material and the reader. In The Purple Island, the body's anatomical structure is displayed for the reader not by a medical authority, perhaps corresponding to the author, but by Thirsil, a shepherd/poet who has won a literary competition (P.I. 1. 4), and has been asked to demonstrate his poetic ability. In a similar fashion, such medical information as The Little World unfolds is the product not of an anatomist or physician who we can term "R. Vn.", but is the contents of a dream or vision the nature of which the dreamer himself is unsure of. In some sense it is quite wrong to see The Purple Island in terms of a medical work, even if its information seems to correspond to such a text, since it never claims the authority of anything other than an imaginative treatment of the body.

In the case of Fletcher, the 'retreat' into the conservative form of pastoral has been linked with a general sense of backward looking conservatism, and political alienation. In bringing Spenser to life, the Spenserians, so the argument runs, are signalling their general dissatisfaction with their world. David Norbrook for example, links Fletcher to "...a group of poets who are alienated from the court and sometimes used the traditional symbolism of Protestant pastoral to voice their discontent." Norbrook continues:

The years 1613-1614 saw a revival of pastoral poetry; and in adopting the persona of the plain-speaking shepherds the Spenserians were indicating their dissatisfaction with contemporary events.

Certainly, the opening of The Purple Island, with its longing backward glance at a recently vanished past, seems to substantiate Norbrook's claim - "...wretched we," Thirsil complains "To whom these Iron daies / (Hard daies) afford nor matter, nor reward!" (P.I. 1. 17).

But The Purple Island is more than a discontented Elizabethan grumble in a Jacobean world. The pastoral form may signal, as Norbrook (following Joan Grundy) suggests, a desire to re-invigorate a decayed poetic form and hence to evoke a golden past.<sup>23</sup> But, in The Purple Island, at any rate, pastoral also provides a useful cloak with which to disguise ideas culled from the anatomy theatre as well as from the reading of Vergil, Du Bartas, Spenser, and Sannazario.

The Purple Island can begin to be seen, I hope, as a text robbed of some of its singularity. Hitherto, whilst its debt to Spenser and Du Bartas has been acknowledged, the poem's subject matter has divorced it from anything which could be termed a 'context'. But, placed along side the work of Kynaloch, Norden, Hagthorpe, Clapham, Davies of Hereford, and "Ro. Vn.", themselves representatives of what might be termed a populist approach to contemporary religious and scientific ideas, The Purple Island appears not so much as an "incongruous dragon" as a sophisticated representative of those poetic texts which took the human frame as their subject.

This is not to say that Fletcher's poem may not be read within other contexts. Thirsil's device of remarking on the essential strangeness of the familiar structure of the body, for example, might be compared to the technique employed by Joseph Hall in his Mundus Alter et Idem (Frankfurt, c. 1606, trans. c. 1608). Hall's work takes the form of a traveller's account of a voyage into unknown lands. The provinces which are visited are a strange mixture of 'genuine'



geography and the allegorized human body. But as the Latin title indicates, the land which is explored is paradoxical - "another and the same". The English version makes the paradox explicit in describing the work as:

A discoverie and no discoverie, of a world and no  
world, both knowne and unknowne, by a traveller  
that never travelled.

24

Hall's traveller who never travelled is the direct counterpart to Thirsil's discovery, in The Purple Island of a "strange, though native coast". The point, again, is that to allegorize the body is to explore it as unknown territory, uncovering significations hitherto unperceived.

To Donne's statement that "No man is an island", the allegorist answers that, imaginatively, he may well be. Thus Richard Bernard's The Isle of Man is described as "a continuel allegory" which is a record of the author's travels through the "whole Isle of Man" and, in particular, his visit to the chief town of the island - Soul.

The allegorized human body which is the setting for the confrontation between good and evil in The Isle of Man, and which was later to provide Bunyan with the material for his allegory of the human body in The Holy War ("The losing and taking again of the town of Mansoul") appears in the later sections of The Purple Island as the setting for the war between virtue and vice. And whilst the body is the location of the dispute, it is also the prize for which the warring parties are fighting. The body, once allegorized, need not be constrained by allegory. In Delbene's Civitas Veri, for instance, the body is transformed into the city of truth, entered by the gates of the senses. In Thomas Tomkis's play Lingua, on the other hand, the body is the comical setting for a dispute amongst the senses as to which of them should claim precedence in the land of Microcosmos. The Purple Island thus begins to appear as perhaps a rather less singular text than has been supposed. 25

The Purple Island (I): Religion and Politics

When Fletcher began work on The Purple Island, then, some time prior to 1615, his undertaking was not novel. However, novelty, or certainly priority, is what Thirsil the poet/anatomist claims in the opening stanzas of the poem. To celebrate his success in the election of the May-Lord, he is called upon to provide the evidence for his poetic prowess. The call is seen as a demand to appear in the public arena, rather than to produce verses which might be categorized as private. As one of Thirsil's companions points out:

...thy Muse untri'd  
Hath only learn'd in private shades to feigne  
Soft sighs of love unto a looser strain...

(P.I. I. 5.)

"Sing what thou list" the companion continues, but then provides Thirsil with a possible series of themes, all of which assume that love, once again, is the theme of any ambitious poet - "Cupids spite," perhaps, or "Gemma's grief".

Thirsil's first act, as the shepherds' poetic representative, is to reject such subjects, and, at the same time, to affirm his commitment to a religious theme:

...such wanton toyes  
A better mind and sacred vow destroyes,  
Since in a higher love I settled all my joyes.

(P.I. I. 6)

But which religious theme is to be chosen?

Tell me, ye Muses, what our Father-ages  
Have left succeeding times to play upon:  
What now remains unthought on by those Sages,  
Where a new Muse may trie her pinion?

(P.I. I. 9)



A survey of preceding poetry reveals that Thirsil must strike out on his own if he is to uncover a theme suitable for his own moment. The problem of trying to locate a theme is conjoined, as Thirsil soon discovers, with the difficulty of defining an audience. The shepherds have elected him their spokesman, and thus forced him into the public arena (unwillingness to speak, we learn as the poem unwinds, is to be one of Thirsil's characteristics) but will the public accept the voice which is offered? Perhaps, Thirsil concludes, indifference is the safest pose to adopt:

What shall I then need seek a patron out,  
Or begge a favour from a mistris eyes,  
To fence my song against the vulgar rout,  
Or shine upon me with her Geminies?  
What care I, if they praise my slender song?  
Or reck I, if they do me right, or wrong?  
A shepherds blisse nor stands nor falls to ev'ry tongue.

(P.I. I. 31)

The pastoral persona, then, provides Thirsil with an audience, but a defined audience who will share his assumptions. It is with this audience in mind that he finally selects his theme.

The elaborate opening fiction of the poem has, perhaps, led to some of the critical mis-apprehensions which have clustered around Fletcher's poem. It is Thirsil, not Fletcher, who claims his theme to be new. But the theme's supposed novelty is held in balance by the care with which Thirsil has named his poetic forbears - Virgil, Du Bartas, and Spenser. If the theme is to be understood as new, then the poem's progenitors can still be assumed to provide contexts in which to understand the allegory of The Purple Island - religious epic, historical epic, or pastoral song - all are possible genres in which the poem might be located.

Thirsil's opening remarks set out to define both subject-matter

and audience for the poem. The point which emerges most strongly from these comments is the sense of the writer's own isolation. Isolation might be attributable, as Norbrook suggests, to the Spenserian poets' own sense of being politically isolated. In this case, the pastoral conventions of the poem may well help to function as a type of code. If the poem is to be considered as a code, though, the question of what it is that is encoded in the poem's twelve cantos has to be faced.

We can begin with the poem's title. Why is man an island, and why is that island purple? In other words, can the poem's title itself be read as a clue to the codes within which the poem can be thought of as operating. To take the question of colour first, Joan Grundy has suggested that purple denotes no more than a baroque liking for "gaudy colour effects".<sup>26</sup> This need not be disputed, but it might be possible to go further. To associate purple with imperial rank, and by association within the poem, with the dignity of the human form is possible. Purple, though, is the colour specifically linked with penitence and mourning, particularly in an ecclesiastical context. As parody of the claims made on Christ's behalf to kingship, part of the humiliation before the crucifixion involved the wearing of a purple robe: "And the soldiers platted a crown of thorns, and put it on his head, and they put on him a purple robe." (John 19. 2.). The wearing of purple by the priest at Easter, and specifically on Good Friday, is a reminder of the events of the Passion, and hence a sign of Christ's redemption in its complete form. Finally, purple signifies the colour, in the human body, of venous as opposed to arterial blood. It is possible to uncover, in the poem, just such a range of signification grouped around the colour purple.



Purple blood is evoked early in the anatomical sections of the poem, where the island is described as sprinkled "with purple-colour'd dew", and a marginal note informs us that this blood is conveyed through the veins. (P.I. II. 10. marg. note g). But the full range of religious association with the colour is hinted at later in the poem, and finally developed in the closing stanzas. In the sixth canto, the sleeping conscience of the island ("Synteresis"), is compared to flowers which in winter disappear. One of these flowers, the violet, is taken as a metaphor for the eventual awakening of conscience as it flowers once more in the spring:

The early Violet will fresh arise,  
And spreading his flour'd purple to the skies,  
Boldly the little elf the winters spite defies.

(P.I. VI. 68)

The flowering of the violet is itself dependent on the appearance of the sun - the "new born sun" of spring, and, of course, the "Sonne" which "A perfect Virgin breeds and bears" (P.I. VI. 71-72).

The flowering of the violet after the winter is a foretaste of the eventual redemption of the island through the intervention of Christ. When that intervention is described, at the close of the poem, the importance of "purple" in the poem's title is finally made explicit. Christ confronts the Dragon, dressed in armour which, it is stressed:

...all was dy'd in purple blood;  
(In purple blood of thousand Rebell kings)  
In vain their stubborn powers his arm withstood:  
Their proud necks chained he now in triumph brings,

(P.I. XII. 62)

This portrait of Christ triumphant, is also a depiction of Christ the Redeemer. The blood which drenches his armour is purple both as a

sign of the imperial blood of "Rebell kings", but also as a reminder of the purple robe which was worn at the cruxifiction, and the redemption of the island of man which has been accomplished in the final defeat of the Dragon, and which culminates in the marriage of Christ and the Church - "Eclecta".

If the "purple" of The Purple Island can be seen as, in some parts, a clue to the religious dimension of the poem, what can be said of the decision to transform the body into an island? Here, again, it would seem that Fletcher was calling to mind a set of references or allusions that come close to what might be termed the internal politics of the poem.

At the end of the first canto Thirsil describes the island (and its inhabitants) living in a state of pre-lapsarian innocence:

None knew the sea; (oh blessed ignorance!)  
None nam'd the stars, the North carres constant race,  
Taurus bright horns, or Fishes happy chance:  
Astrea yet chang'd not her name or place;  
Her ev'n-pois'd ballance heav'n yet never tri'd:

(P.I. I. 51.)

Ignorant of astronomy, with justice (Astrea) prevailing, it is the island's isolation which preserves its fortunate state:

None sought new coasts, nor forrain lands descri'd;  
But in their own they liv'd, and in their own they di'd.

(P.I. I. 51.)

This peaceful state cannot, of course, endure. Eventually the island seeks knowledge, and falls. The fall, though is envisaged as a voluntary surrender of the island's isolation, and a desire to become a part of a larger land-mass:

Witnesse this glorious Isle, which not content  
To be confin'd in bounds of happinesse,  
Would trie what e're is in the continent;  
And seek out ill, and search for wretchednesse.

(P.I. I. 53.)



The search for knowledge, symbolized by the island's desire to "trie what e're is in the continent", leads to an inevitable falling away from God.<sup>27</sup> This traditional Christian argument (based on the serpent's words to Eve in Genesis 3. 5.) is amplified in the following stanza:

That old slie Serpent (slie, but spitefull more)  
 Vext with the glory of this happy Isle,  
 Allures it subt'ly from the peacefull shore,  
 And with fair painted lies, & colour'd guile  
 \* Mare Drench'd in \*dead seas; whose dark streams, full of fright,  
mortuum. Emptie their sulphur waves in endlesse night;  
 Where thousand deaths and hells torment the damned sprite.

(P.I. 1. 54)

The serpent encourages a desire which the island has already expressed. Knowledge, which the island had sought on the "continent", is not found, and the island is left floundering in "dead seas". It is from this fallen state that the island is to be redeemed by Christ, as the subsequent stanzas of the canto make clear.

It will be immediately apparent that the allegory, even at this early point of the poem, is not consistent. If the island, in a state of innocence, preserves its integrity through ignorance of any larger land-mass, what is the "peaceful shore" from which it is lured by the serpent? It is as though Fletcher is confusing the island (transformed through the allegory into man) with the inhabitants of the island. The island is thus both a symbol of man in his unfallen state, and a garden of Eden which man exchanges for "dead seas". The allegory remains, however, as an answer to Donne's affirmation that "No man is an Iland, intire of itself; every man is a peece of the Continent, a part of the maine";".<sup>28</sup> In The Purple Island to become a "peece of the Continent" is to drift away from God, and towards death.

Thus far, the allegory of man as an island would seem to fit into the general religious framework of the poem as a whole. But islands and continents, for Fletcher, existed in a political sphere. For both Phineas and Giles Fletcher, the continent was the locus for a mixture of emotions which crystalized around an intense protestant dislike of the "Italianat" power of Roman Catholicism. England, as an island cut off from the continent, is spared the domination of catholicism. But its safety is a tenuous one, as Fletcher was at pains to stress. His most complete 'political' statement, the violently anti-catholic poem entitled The Locusts (1627), was prompted by the events of the Guy Fawkes conspiracy, but it is also a survey of contemporary events and a form of advice to the monarch, Charles I. Europe is presented in the poem as a continent racked by discontent and war, the blame for which Fletcher lays almost entirely at the feet of catholic interest. From this turmoil, England as a protestant power is spared, but only by the grace of God, and the constant watchfulness of its inhabitants.

In The Locusts England is itself described as a floating island. This floating island contains the sole means of salvation for the world - Christ - imagined as the island's pilot:

The world's sole Pilot, who in this poor Isle  
 (So small a bottome) hast embark't thy light,  
 And glorious selfe: and stear'st it safe, the while  
 Hoarse drumming seas, and winds lowd trumpets fight,

(The Locusts I. 3.)

The floating island which is the protestant state must be vigilantly aware of its saved existence:

Harke thou sav'd Island, harke, and never cease  
 To prayse that hand which held thy head in peace.  
 Else had'st thou swumme as deep in blood, as now in seas.

(The Locusts I. 4.)



In The Purple Island, on the other hand, the "seas of blood" which Fletcher maintains will be the fate of England if it departs from its present position of armed vigilance, are transformed into the "mare mortuum" which the island has to be saved from through the intervention of Christ. The continent towards which the purple island wishes to drift can also be understood as the continental mass of Europe, the home, for Fletcher, of catholic ignorance.<sup>29</sup>

Politics and religion can be seen as inseparable in The Purple Island. At the moment before the final intervention of Christ of behalf of the island, an angel appears to confront the serpent. The angel, a marginal note informs us, is "our late most learned Sovereign":

And straight an Angel full of heav'nly might,  
 (Three several crowns circled his royall head)  
 From Northern coast heaving his blazing light,  
 Through all the earth his glorious beams dispread,  
     And open laies the Beasts and Dragons shame:  
     For to this end th'Almighty did him frame,  
 And therefore from supplanting gave his ominous name.

(P.I. XII. 55.)

James I, with the crowns of England, Scotland, and Ireland, arriving from the "Northern coast" is shown to be the instrument of God. His name is itself, for Fletcher, a reminder of Jacob, the wrestler with the angel (Genesis 32. 24.). James's writings, Fletcher suggests, have "supplanted" (i.e. overthrown) the dragon's and the beast's works (i.e. catholicism), thus foreshadowing the final defeat of the serpent by Christ.<sup>30</sup>

To introduce the recently dead monarch at this, the climax of The Purple Island, is to place the poem in a political context. The island which stands for the human body is also to be understood as the body politic, and its fate is inseparably bound up with its religious fidelity. We can begin to understand the poem's allegory

as being a highly ambivalent device. Refusing to remain static, the allegory of the island-body works through at least two possible 'levels' of meaning, one of which we can term broadly "religious", the other, again broadly "political". To separate them, in this way, though, is to perform a bisection which the poem refuses to acknowledge. Within the poem religion and politics are fused through the presentation of the dissected body imagined as the potentially well-ordered state. To ensure the preservation of that state, the island-body must turn to religion, but to understand the relation of the island to religious fidelity, it must first be dissected. It may be as well, here, to keep in mind the fact that allegory need not be a constraining device, and neither must allegory function on one 'level' to the exclusion of other 'levels' of possible interpretation.<sup>31</sup>

This process by which, gradually, another layer of meaning is, as it were, peeled back from the poem through the process of explication, reveals a curiously fragile structure. For although the poem ends as a triumphant account of the overthrow of evil, the political 'level' of meaning suggests a good deal more anxiety at the eventual satisfactory outcome of events. In the religious context, good will eventually triumph, but in the political context, where the island-body is England, that outcome can by no means be taken for granted. The island is still an island, adrift in hostile seas, James the "supplanter" is dead, the continent is still over the horizon. Above all, the poem is written from the perspective of the fallen state. To return, for a moment, to Thirsil's evocation of a glorious past in the opening canto of the poem, where seas are unknown, stars unnamed, *Astea*<sup>1</sup> still present, foreign lands and new coasts unseen and unsought, and the island's isolation complete, all this is set firmly in a past which cannot be recaptured. It is as though the poem must



function as a warning for the future, at the same time as that future, from the fideistic perspective of the protestant poet, will eventually reveal itself as beneficial.<sup>32</sup>

### The Purple Island (II): Order and Dissection

If Fletcher's poem has not attracted a wide readership, it can number a distinguished one. Milton, as has been noted, knew the poem well. So too, did James Joyce. It was soon after meeting Joyce in Zurich, in 1918, whilst work on Ulysses was progressing, that Frank Budgen was advised by Joyce to look at Fletcher's poem. Joyce evoked Phineas Fletcher as one of his book's many progenitors. Budgen recalls the conversation in which Joyce maintained that "Among other things":

...my book is the epic of the human body. The only man I know who has attempted the same thing is Phineas Fletcher. But then his Purple Island is purely descriptive, a kind of coloured anatomical chart of the human body. In my book the body lives in and moves through space and is the home of a full human personality.

To Budgen's response that such a book can only be partial ("But the minds, the thoughts of the characters," I began."), Joyce replied in a phrase which might be adapted to the reading of Fletcher's poem: "'If they had no body they would have no mind...It's all one'".<sup>33</sup>

In terming Fletcher's poem "purely descriptive, a kind of coloured anatomical chart of the human body" the suspicion is perhaps aroused that Joyce never read beyond the purely anatomical sections of the poem. But Joyce's description of The Purple Island in terms of its anatomical sections is in keeping with other responses to the poem. What is remarkable about the poem is not, in the end, its creation of a Christian epic, but the single-mindedness of the pursuit of the poem's opening conceit - that the body is like an island in all its

dissected detail.

The dissection of the body which takes place in the poem is not, however, an arbitrary one. To say that the body is itself the organizing principle of the poem is to miss the essential point that the anatomy which takes place is one strictly bounded by the methods of dissection available to Fletcher. These methods, we have seen, are themselves a reflection of a methodological debate which, by the early 1600's was well-advanced. Given the underlying conceit of The Purple Island that the body can be compared to a geographical region, we might expect Fletcher to look back to the older anatomical systems in which order was determined by decay, and the harmonious correspondence of macrocosm and microcosm informed the whole. This, in fact, is not the case. Thirsil, as he performs his anatomy, elects to adopt a system of description which is strikingly close to the Vesalian method. The anatomization of the island begins on the afternoon of the poem's first day with a description of the bones, veins, arteries, and nerves (canto II), and then moves on to descriptions of the abdomen during the following morning (canto III). During the afternoon of the second day (canto IV), the thorax is examined. During the third day the anatomy is concluded with a discussion of the head (canto V).

From this description of The Purple Island's order of anatomy it is, I think, clear that what is described is a theoretical rather than a practical dissection. Having said that, though, it is also clear that Fletcher has carefully constructed the poem so that the anatomization of the island body is concluded within three days - the same period of time usually allotted to a practical dissection in a Renaissance anatomy theatre. In fact, to ensure that the anatomiz-



ation is concluded in the prescribed time, Fletcher has had to depart from the poem's chronology in canto V, where the canto describes the events of a complete day rather than (as in all other cantos) the events of either a morning or afternoon session.

Given the nature of the subject matter of the first half of The Purple Island, it would seem almost inevitable that a good deal of critical attention has been focused on how Fletcher came by his material. Langdale, for example, has suggested that whilst at Cambridge Fletcher would have had the opportunity to witness the dissections which took place at Caius College from 1557 onwards.<sup>34</sup> But from the structure of the anatomical sections of the poem, it becomes apparent that there is no single source from which information has been lifted and 'poeticized'. The poem follows the Vesalian order of description which would have been available to Fletcher in either the original version of Vesalius' text of 1543, or the edition of Geminus of the Vesalian text. But it would, at the same time, be unwise to cite Vesalius as the 'source' of the poem, since The Purple Island also conforms to the time-scale of the practical dissection. Similarly, though Spenser's 'House of Alma' is important to the poem as a whole, Thirsil's survey of the body is not a mirror of the earlier journey made by Arthur and Guyon.

Nor is it the case that the poem has a single structural principle. Thirsil's account takes seven days, in all, to recite, suggesting that the poem belongs to the hexaemeric tradition. But the poem also neatly falls into the oppositional structure of body against soul, with the first half recounting the history of the body, and the second the history of the soul. At the same time, as we have seen, there is an anatomical structure at work in the first half of

the poem which Thirsil is careful to maintain, even if it means departing from the scheme where each canto describes a half day of narration.

If the structure of the poem reveals no single model, then what is to be made of the poem's most extraordinary feature, in the eyes of the modern reader, the copious anatomical information which is provided in the first half of the text through the agency of the marginal notes, Fletcher's penchant for scientific accuracy might, in part, be ascribed to the theory of poetry as a didactic form which sixteenth century critics such as Sidney and Puttenham derived from their understanding of the classical texts, in particular Vergil's Georgics, and Horace's defence of poetry in the Ars Poetica. In arguing on behalf of poetry on didactic grounds, Puttenham, for example, is mirroring a debate which claimed that poetry was the form in which "honest and profitable artes and sciences were treated in antiquity,"<sup>35</sup> This position, is similar to that adopted by the Italian critics, Scaliger, Minturno, and Fracastoro. Fracastoro himself had produced a "Scientific" poem when his Syphilis sive morbus gallicus appeared at Verona in 1530. Kynaloch's De hominis Procreatione has already been cited, but it, too, can be classed as a didactic poem. Knowingly or unknowingly, works such as these look back to some of the earliest forms of poetry: Hesiod's Works and Days (8th century B.C.), Empodocles' About Nature and the work of the cosmological poets of the 6th and 5th centuries B.C., the Phenomena of Arastus (3rd century B.C.), and Lucretius's much later De Rerum Naturae (1st century B.C.). Works of a similar nature Fracastoro was to defend in 1555 when, in his Naugerius, he argued that poetry may not only convey information, but may also indicate through the provision of information the order



and perfection of the universe as a whole. It was the very absence of such poetry in England which Henry Reynolds was to complain of in his Mythomestes (London, 1633) when he attacked modern poets for their inferiority to the ancients as natural philosophers.<sup>36</sup>

It is quite possible to see The Purple Island within this context, and to see it thus as glancing back to classical forms other than the pastoral and the epic. But no account of didactic poetry as a traditional form quite describes the reader's experience of confronting the poem. What emerges most strikingly is the sense that in reading The Purple Island we are faced with two autonomous forms of discourse, rather than one (the 'poetic') supported by the other (the 'scientific'). So, if the heart is described, the image of the heart with which we are left is a double one, partaking of the poetic and the scientific at one and the same time. This can be appreciated most easily if we look at the form of the poem on the page. A page from the 1633 edition of the poem is reproduced in Fig.4.

To say of stanza 16, for example, that the marginal notes simply support what the text describes through metaphors is to take only one step towards interpretation. A rather different possibility is to read the poem within the context of the tradition of anatomical text-books, to read it, in other words, as an anatomy. The marginal notes and the poem then exist in a slightly different relationship. The poem becomes the equivalent of a drawing - the anatomical figure itself - and the notes become the text or main written explanation of the figure. The poem is, in this sense, the dissected body, and the notes the anatomist's observations. Seeing Fletcher's text in this way is to see it as Fletcher describes the body within the poem: "dissected wreathes" (P. I. IV. 9).<sup>37</sup>

146



Syntactically, the marginal notes form what amounts to an autonomous narrative in their own right, which runs in parallel to the poetic narrative of the body. Both texts are, however, struggling to uncover agencies of comparison with which to describe the body as it is dissected, or rather, given the actual order of dissection, constructed. The chief difference between the two texts is not so much that one is purely unfigural ("scientific") whilst the other is metaphorical ("poetic") since similes appear in the notes and scientific patterns of language in the poem (see the judicious weighing of contrary opinion which closes stanza 16 in the pages reproduced: "Hence most..."). Instead the difference lies in the terms of comparison which the two texts develop. In the margins, the system of comparison is, finally, a closed one. The body can be compared only to itself or to its own features. Thus the "humour" which encloses the heart (note m) is itself of the texture of other bodily fluids - whey or urine.<sup>38</sup> The poetic text, on the other hand, endeavours to expand the terms of the comparison outwards, to uncover the significance of the body in relation to the external world. The heart is, therefore, like an island, whose motion is "Most like to heav'n... constant moving". In the poem, the body and terrestrial geography merge into the heavens themselves. We might think of this rhetorical strategy as exploring, in miniature, the larger themes with which Fletcher's poem is dealing. The merging of body and heaven, or the combination of the two, is not merely a variation on the traditional theme of microcosm and macrocosm, but a representation of Christ incarnate and a witty play on the words of St. John's Gospel: "And the word was made flesh" (John, I. 14). In The Purple Island words and flesh were brought into conjunction in the praise of Christ. The

"mystery" which the poem attempts to penetrate is the union between an heavenly and an earthly body, a mystery uncovered, paradoxically, through the anatomical reduction of the human body. Opening the thorax, for example, Fletcher has become a divine anatomist and an anatomist of the divine:

That mighty hand in these dissected wreathes,  
 (Where moves our sunne) his thrones fair picture gives;  
 The pattern breathless, but the picture breathes;  
 His highest heav'n is dead, our low heav'n lives:  
     Nor scorns that loftie one thus low to dwell;  
     Here his best starres he sets, and glorious cell;  
 And fills with saintly spirits, so turns to heav'n from hell.  
(P.I. IV. 9)

A dissection of the body leaves the organism an empty shell, but one which holds a lesson for the dissector. The body contains a "sunne", as it once contained the son, and though the "pattern" or copy of the creator (the human body) may be breathless, the picture, or image (which is the poem) "breathes". Indeed, the anatomical picture can only breathe, or reveal itself, when the body has ceased to breathe. Expressed in this paradox is Fletcher's attempt at describing the central paradox of Christian doctrine: "First heav'n must dwell in man, then man in heav'n shall dwell." (P.I. IV. 26).

Interpreting Fletcher's poem presents peculiar problems. Not least is the modern reader's difficulty when confronted both by the subject matter and the form of the poem. Generically, the poem does indeed appear to be a dragon - a mixture of genres which include epic, pastoral, and Spenserian allegory.<sup>39</sup> But it belongs, too, to other forms of writing: the ancient tradition of the didactic poem which underwent a phase of popularity in the period is one example. But so too is the anatomical text. To read The Purple Island is to see realised the claims of seventeenth-century anatomists to be embarked



upon a project whose end was, ultimately, divine rather than utilitarian. At the same time Fletcher's poem represents a site of linguistic struggle. A text such as The Purple Island, in its incorporation of two simultaneous discourses, facing one another on the page, is a text which stands as an icon for the programme of linguistic reform which was to be undertaken in the later seventeenth century. Reading Fletcher's poem is thus to have a foretaste of the post-Hobbesian proscription of poetic language in the languages of science. The Purple Island, in this sense, is truly unique in that it already demonstrates what Hobbes and The Royal Society were to proclaim - poetry and science might face one another on the page but, eventually, the page could be occupied only by one, or the other, but not both.<sup>40</sup>

#### Conclusion: A Reply to the Purple Island

The battle which is waged on behalf of the purple island in the final two cantos of the poem was to be fought again in 1667 when Paradise Lost was published. Just as in The Purple Island it is the intervention of Christ at the climax of the battle in Book VI of Milton's poem which ensures the triumph of the forces of heaven. Milton's confrontation might be thought of as a continuation of that earlier skirmish over Man into which Guyon and Arthur had trespassed when they put to (temporary) flight the forces which besieged the castle of Alma in The Faerie Queene. Spenser, Fletcher, and Milton all imagine the body and soul of man as the prize which is fought over between the forces of good and evil. But all three poets, as well, were aware of the fact that the prize was not simply a passive object to be gained by the stronger party. The external battles which take place in The Fairie Queene, The Purple Island, and Paradise Lost mirror the internal battles which take place within the human soul. The sad

case, for all three poets, is that Man is capable of self-betrayal. Self-betrayal, or internal rebellion, figured as a turning away from God, is the ultimate battle which is fought and re-fought in the seventeenth century.

Self-betrayal and internal rebellion is also the theme of perhaps the longest poem written in the seventeenth century, and one that stands between Fletcher and Milton - Joseph Beaumont's Psyche (London, 1648).<sup>41</sup> Psyche, composed during Beaumont's enforced absence from Cambridge following the Earl of Manchester's visitation of the university in 1644, is virtually a high-anglican reply to the puritan sentiments of The Purple Island.<sup>42</sup> But, just as The Purple Island is a religious anatomy which exists within a political sphere, so Psyche discovers within the human body an illustration in miniature of political debates which were pursued with vigour in wider contexts elsewhere.

"My desire is" Beaumont wrote in the preface to the 1648 edition of Psyche:

...that this Book may prompt better Wits to believe, that a Divine Theam is as capable and happy a subject of Poetical Ornament, as any Pagan or Humane Device whatsoever...<sup>43</sup>

In selecting his divine theme Beaumont seems to mirror the choice made by Thirsil. Like The Purple Island, Psyche is to be an epic of the Christian story of redemption. Like The Purple Island, too, the poem's title suggests both the locus of the poem's action, and the prize which is fought over. Unlike Fletcher's poem, though, Psyche begins not with the creation of the human soul or body, but with events which seem to anticipate the first book of Paradise Lost - a concord of the damned in Hell. This is not, however, comparable to the



original meeting after the fall of the rebellious angels which takes place in Milton's version. Just as Milton's Raphael was to predict, human history has unfolded and hell is now peopled with human souls. The project which is the subject for debate in the opening meeting of Psyche is the plan to capture Psyche - the human soul imagined as a single personification - and thus rival the claims of Christ by whom she is also wooed.

In the fourth canto of the poem Psyche is revealed as a monarch of the human microcosm who exercises an uneasy power over her realm. Her kingdom is in disarray, a state of affairs to which she has her~~self~~ contributed through her slavish devotion to 'excessive' religious exercises as the argument to the canto makes clear:

Call'd with severe Devotions constant yoke  
 The Senses, and the Passions Rebell:  
 Having the Spirit of Pride for Generall took,  
 By fair-tongu'd Treason they with Psyche deal.  
Reason's surpris'd and into Prison thrown.  
 The Will revolts, and Psyche's left alone.

(Psyche, "Argument to 4th canto")

It is difficult to resist interpreting this type of writing in a directly historical fashion. Though Thomas Pride's purge of the House of Commons did not take place until 6 December 1648 (thus making Pride an unlikely candidate for the "<sup>f</sup>Spirit of Pride" in Psyche), nevertheless the events of the poem seem to bear some correspondence to political events which were unfolding in the late 1640's.<sup>44</sup> In particular, it is hard to see the speech of Love in Canto 5 of the poem as being anything other than a direct warning to the monarch not to deal with his rebellious subjects in any fashion which might be understood as concessionary. Love's "Great Deceit" towards Psyche is to argue on behalf of the rebels in persuading Psyche to accept a compromise, just as Cromwell had hoped that Charles would accept a

settlement based upon Ireton's The Heads of the Proposals in late 1647.<sup>45</sup> Psyche's acceptance of her subjects' proposals, Beaumont affirms, sets the "seal to her own Miserie", and the kingdom is transformed:

Laws and Sovereignty, the Life & Health  
Of every Heav'n-descended State, must bow  
Unto Plebeian Wills!

(Psyche V. 164)

The resultant commonwealth is a monster, reminiscent of the disorder which preceeded creation:<sup>46</sup>

No Hydra's shape so shapeless is as this which  
throws the World back to its breeding heap,

(Psyche, V. 165)

Providential history and political events are brought into conjunction as the poem unfolds, in much the same way that puritan theology was urged as a justification for political action by supporters of Pride in 1648.<sup>47</sup> An overtly political reading of Beaumont's poem, though, has its dangers. These dangers can be seen as a product of the poem's own confused response to the events which it seeks to portray. If the poem begins as avowedly monarchical, and determinedly anti-republican, its stance is altered as it moves further into doctrinal debate. Psyche herself is an insubstantial heroine, at times appearing almost as the villain of the poem in her willingness to accept compromises with her enemies. Rebellion itself is seen as almost a justified response if the alternative is puritan zeal which one of the rebels ("Ophresis" - the sense of smell) claims is Psyche's failing:

For on the Rack she holds me night and day  
And ties me pris'ner to a Dead Man's skull,  
On which whilst she doth rest her hands to pray,  
The stink of Death doth both my Nostrils fill.

(Psyche. V. 111.)



If Psyche is understood as a religious poem whose function is to act as a response to (and warning against) political trends, then its similarity to The Purple Island can, I think, be perceived. Fletcher's poem, however, had also shown Beaumont how the human body could be transformed into a scene of political activity.<sup>48</sup> Despite Beaumont's interest in the mystical practices associated with St. Teresa, which entail an eventual release of the soul from the constraints of the body, the physical presence of the body is evoked with all the detail we might expect of the puritan Fletcher.<sup>49</sup> For Beaumont, as we have seen, the body was a place of rebellion, but it is also an architectural structure to be described in terms reminiscent of The Purple Island, and earlier literary/anatomic texts. Thus, the ground is perhaps familiar when "Acoe" (the sense of hearing) describes her "house" with its "privy galleries" (IV. 71-6). Similarly, "Opsis" (sight) offers an anatomy of the eye in describing the "Adnate Tunicle" and the "Corneous veil" (IV. 38-9). But, the body is still a political entity as well as an architectural construction, as "Haphe" (touch) makes clear in claiming dominion over the whole:

You to your proper cells confined are,  
And those too stand in my dominions,  
Whose limits are extended near and farr  
Through flesh and blood and skin:

(Psyche, IV. 135)

To indicate areas of similarity between The Purple Island and Psyche, it is not necessary to ignore the strong differences which exist between the two poems. Where, for example, Fletcher had conceived of the human body as a "pattern" to be explored by man in uncovering the presence of God, Beaumont also expresses the idea of the body as a divine "pattern". But Beaumont's pattern is of a rather different order to that of Fletcher:

For Mary now the Mansion-house became  
 Of her conceived God, who deign'd to take  
 His Pattern from her reverend Bodies frame  
 And borrow part of Her, thereby to make  
     A garment for himselfe, that hee might be  
     As true and genuine Flesh and Blood as she.

(Psyche, VII. 102.)

Fletcher is never as specific. But more than this Beaumont's sense of Mary's body as the "pattern" which Christ incarnate copies, or "borrows" is an expression of a religious sensibility in quite fundamental opposition to that of Fletcher.<sup>50</sup>

The point remains, though, that the human body is the meeting place of the two epics. Existing as the battle-field upon which religious or political issues can be fought out, the body and its internal configuration also reflect the order of creation. At the opening of The Purple Island Thirsil had imagined the body as "a strange, though native coast" and "a place too seldome view'd". It is the business of The Purple Island to explore this familiar but unfamiliar territory. Likewise Joseph Beaumont in a poem, written during his absence from Cambridge, entitled "Home" echoes Thirsil's admonition. "Seek no more abroad" he writes, but:

...turn thine Eye  
 Inward, and observe thy breast; 51

The inward-turning eye will be met with again when the poetry of Traherne is discussed. Beaumont's advice, however, to turn inwards upon the body had been anticipated by a poet whose doctrinal position was perhaps more sympathetic than Phineas Fletcher's to the author of Psyche. When George Herbert's The Temple appeared in 1633 (published in the same year as The Purple Island, and likewise at Cambridge) the opening poem - "The Church Porch" - contains advice very similar to Thirsil's and to that expressed in "Home".<sup>52</sup> "By all



means use sometimes to be alone" Herbert writes, and when alone it is possible to perform the type of private anatomy which The Purple Island carries to such public lengths:

Salute thy self: See what they coul doth wear.  
Dare to look in thy chest; for 'tis thine own:  
And tumble up and down what thou find'st there. 53

It is, of course, the case that the inward examination Herbert's lines evoke is one which has a spiritual rather than physiological purpose to it. But the observer is asked not only to look, but to "tumble up and down" what is contained within the body - as though understanding will only come after the body has been, in some way, rummaged through. What is performed in the anatomy theatre is a rummaging through of the body, even if the point of the action is directed towards physical rather than spiritual understanding. But it can be appreciated, I hope, how the actions of the anatomist can be transformed by the poet into a metaphor for the type of inward search which Herbert has in mind. The important point to keep in mind, though, is just how little distance a poet such as Fletcher travelled from the anatomy theatre in exploring the possibilities of such a metaphor.

## Notes

<sup>1</sup> George Macdonald, England's Antiphon (New York, 1863) pp. 155-6, cited by R. G. Baldwin, "Phineas Fletcher: His Modern Readers and his Renaissance Ideals" PQ 40 (1961) 462-475.

<sup>2</sup> Sir Edmund Gosse, The Jacobean Poets (New York, 1894) pp. 146-8. See also: George Parfitt, English Poetry of the Seventeenth Century (London and New York: Longman, 1985) p. 172.

<sup>3</sup> See: Samuel W. Lambert, "Phineas Fletcher and Francis Quarles and the Purple Island of Phineas Fletcher," Annals of Medical History n. s. 3 (1931) pp. 568-578; Marjorie Nicholson, The Breaking of the Circle: Studies in the Effect of the "New Science" Upon Seventeenth Century English Poetry, (Evanston: Northwestern University Press, 1950) p. 29; A. B. Langdale, Phineas Fletcher: Man of Letters, Science, and Divinity, (New York: Columbia U. P., 1937); Augustus T. Pohlman, "The Purple Island by Phineas Fletcher. A Seventeenth Century Layman's Conception of the Human Body," Johns Hopkins Hospital Bulletin 18 (1907) pp. 317-321; Anon., "A Poet's Anatomy," BMJ May 9, 1925, p. 890.

<sup>4</sup> See: R. G. Baldwin, p. 462; E. C. Baldwin, "Milton and Phineas Fletcher," JEGP 33 (1934) pp. 544-546.

<sup>5</sup> George Macdonald, England's Antiphon p. 156.

<sup>6</sup> References to Spenser's poetry are to: Edmund Spenser, The Works A Variorum Edition, ed. E. A. Greenlaw et al., 10 vols. (Baltimore: Johns Hopkins University Press, 1932-49), unless otherwise indicated.

<sup>7</sup> References to Fletcher's poetry are to: Giles and Phineas Fletcher, Poetical Works, ed. F. S. Boas 2 vols (Cambridge: CUP, 1908-9). References are to cantos and stanzas of individual poems.

<sup>8</sup> See Alistair Fowler, Spenser and the Numbers of Time (London: RKP, 1964) pp. 9-10. For an extended discussion of F.Q. II. ix. 22 see Fowler, pp. 260-291.

<sup>9</sup> Harry Berger, Jr., The Allegorical Temper: Vision and Reality in Book II of Spenser's Faerie Queene, Yale Studies in English 137 (New Haven: Yale U. P., 1957) p. 71.

<sup>10</sup> Anthea Hume, Edmund Spenser: Protestant Poet, (Cambridge: CUP, 1984) p. 121.

<sup>11</sup> See James Nohrnberg, The Analogy of The Faerie Queene (Princeton, N. J.: Princeton U. P., 1976) p. 344 for an account of physiological information in the poem acting upon a symbolic level. For further discussion of "The House of Alma" see: Spenser, Works, II. pp. 472-485;



Carroll Camden, "The Architecture of Spenser's 'House of Alma'," MLN 58 (1943) pp. 262-265; Vincent Foster Hopper, "Spenser's House of Temperance," PMLA 55 (1940) pp. 958-967; Crystal Nelson Downing, "The Charmes Back to Reverse: Deconstructing Architectures in Books II and III of The Faerie Queene," Comitatus 13 (1982) pp. 64-83.

<sup>12</sup> Hume, p. 121.

<sup>13</sup> In discussing this transformation of the body into an unknown structure, I have in mind the Formalist concept of Ostranenie. See: Viktor Shklovsky, "Art as Technique" (1917) in Robert Con Davies (ed.), Contemporary Literary Criticism (New York and London: Longman, 1985) p. 55.

<sup>14</sup> The date of publication of The Purple Island was 1633, but the date of composition is uncertain. Langdale argues that the poem was conceived of prior to 1610, and that a final version may have been in existence as early as 1609, though an allusion to Fletcher's ordination (P.I. I. 33) would suggest that the poem was still being re-worked in 1611. The poem does possess a fictional time-scheme in that the meeting of the shepherds is to choose a May-Lord (P.I. I. 2) which takes place on or about 21 May as evidenced by the opening lines: "The warmer sun the golden Bull outran, / And with the Twins made haste to inne and play:" (P. I. I. 1). This May setting was underlined by Fletcher when he dated the poem's dedicatory letter to Edward Benlowes 1 May 1633.

<sup>15</sup> David Kynaloch, De hominis procreatione, Anatome, ac morbis internis priores libri duo heroico carmine donati in Arthur Johnson (ed.), Delitiae poetarum Scotorum (Amsterdam, 1637).

<sup>16</sup> Davies was a prolific writer, composing love sonnets and divine meditations (Wittes Pilgrimage, 1605), holy sonnets (The Holy Roode, 1609), satires (Scourge of Folly, ?1611, Wits Bedlam, 1617, Scourge for Paper Persecutors, 1625), commendatory verses and epigrams. He contributed to the second volume of William Browne's Britannia's Pastorals (London, 1616). For information on Davies of Hereford see: Thomas Fuller, The Histories of the Worthies of England (London, 1662) II. p. 79; Francis Peck, Desiderata Curiosa (London, 1732-5) p. 461; H. E. G. Rope, "John Davies of Hereford, Catholic and Rhymer," Anglo-Welsh Review 11 (1961) pp. 20-36.

<sup>17</sup> See: Ruth L. Anderson, "A French Source for John Davies of Hereford's System of Psychology," PQ 6 (1927) pp. 57-66; Charles D. Murphy, "John Davies' Versification of Sidney's Prose," PQ 21 (1942) pp. 410-414; R. J. Schoek, "Nosce Teipsum and the two John Davies," MLR 50 (1955) pp. 307-310. On the uses to which La Primaudaye was put by English writers see: D. T. Starnes, "The French Academie and Wits Commonwealth," PQ 13 (1934) pp. 211-214; D. T. Starnes, "Some Sources for Wits Theatre of the Little World (1599) and Bodenham's Belvedere (1600)," PQ 30 (1951) pp. 411-418.



<sup>18</sup> References to Mirum in Modum are to the author's annotated copy of the first edition (1602) held in the British Library (1077. f. 6. (1)). On this copy see: Jonathan Sawday, "Unattributed Manuscript Corrections to a Poem by John Davies of Hereford," NQ 28 (1981) pp. 40-41.

<sup>19</sup> Sir Francis Bacon, The Advancement of Learning ed. G. W. Kitchin (London: J. M. Dent & Sons Ltd., 1973) p. 113.

<sup>20</sup> Though the work was undated, it was entered on the Stationers' Register on 27 September 1605. The only extant copies appear to be the 1605 edition in the Folger Shakespeare Library, and the 1612 edition in the Huntington Library. I am grateful to the librarian of the Huntington Library for making available to me their copy of this work.

<sup>21</sup> Compare the moving islands in The Purple Island to F. Q. II. xii.; Ovid, Metamorphoses vi. 186-91; Vergil, Aeniad iii. 73-77.

<sup>22</sup> David Norbrook, Poetry and Politics in the English Renaissance (London: RKP, 1984) p. 207.

<sup>23</sup> Joan Grundy, The Spenserian Poets (London: Edward Arnold, 1969) pp. 72-3. It should be note that Grundy and Norbrook draw very different conclusions as to the motive behind the "retreat" into pastoral. On the "code" of pastoral see: Christopher Hill, Milton and the English Revolution (London: Faber & Faber, 1977) pp. 49-51; Barker, Tremulous Private Body p. 51.

<sup>24</sup> Joseph Hall, The Discoverie of a Newe World (London, ?1608) sigs. q13<sup>r-v</sup>.

<sup>25</sup> Richard Bernard, The Isle of Man: Or the Legall Proceedings in Man-shire Against Sinne (London, 4th ed., 1627); John Bunyan, The Holy War (London, 1682); Bartholomew Delbene, Civitas Veri (Paris, 1609); Thomas Tomkis, Lingua: or the Combat of the Tongue, and the Five senses for Superiority (London, 1607),

<sup>26</sup> Grundy, p. 201.

<sup>27</sup> The desire for knowledge leading to damnation was, of course, an endlessly popular theme in seventeenth-century poetry. See, for example the following poems, all dealing with the spread of learning, and yet all having to negotiate this particular problem: Sir John Davies, Nosce Teipsum (ll 1-4); Fulke Greville, "Treatise of Humane Learning" in Greville, Certaine Learned and Elegant Works (London, 1633); Sir John Denham, "The Progress of Learning" in Sir John Denham, Poetical Works ed. T. W. Banks (New Haven: Yale U. P., 1928) p. 120.



<sup>28</sup> John Donne, Devotions Upon Emergent Occasions, ed. A. Raspa (Montreal and London: McGill-Queen's U. P., 1975) p. 87.

<sup>29</sup> Fletcher's political position is here revealed as especially conservative in the light of Hill's observation that, in the years following the succession of James I, the "grim ideological unity" of the late Elizabethan period had relaxed somewhat. See: Hill, Milton and the English Revolution, p. 269. If Conrad Russell is correct, however, and the period of composition of The Purple Island is one during which "ever severer measures against catholics" were demanded, then the poem appears as very much a tract for the times. See: Conrad Russell, The Crisis of Parliaments: English History 1509-1660 (London: OUP, 1971, rev. 1985) pp. 208-9.

<sup>30</sup> The text which lays open the "Beasts and Dragons shame" is presumably James I's observations on Revelation published in the 1616 edition of James's Works, suggesting that Fletcher was still revising parts of the poem at this date. James is imagined as a wrestler (with the aid of his pen) in The Locusts I. 26.

<sup>31</sup> On "levels" of allegorical meaning see: Angus Fletcher, Allegory: The Theory of a Symbolic Mode (Ithaca, N.Y.: Cornell U. P., 1964) p. 73.

<sup>32</sup> Similarly, The Locusts ends on a triumphant note which is tempered by the warning that the final destruction of "rising Babel seed" lies in the future. See: The Locusts V. 40.

<sup>33</sup> Frank Budgen, James Joyce and the Making of Ulysses, (London: Grayson & Grayson, 1934) p. 21.

<sup>34</sup> Langdale, p. 205. Langdale traces similarities between the poem's anatomical descriptions and Thomas Vicary's Profitable Treatise. Langdale concludes, however, that Vicary had "only the slightest influence" on the poem since The Purple Island does not follow the order of anatomy to be found in the 1577 ed. of Vicary's text. This problem is solved once it is realised that Fletcher may well have been using Vicary's observations, but in the arrangement in which they were to be found in 1553 ed. of Geminus's Vesalian Compendiosa.

<sup>35</sup> George Puttenham, Arte of English Poesie, (London, 1589) p. 35.

<sup>36</sup> See: R. Durling, The Georgic Tradition in English Poetry, Columbia University Studies in English and Comparative Literature 121, (New York: Columbia U. P., 1935) ch. 1; Alistair Fox, "Didactic Poetry" in John Higginbotham (ed.), Greek and Latin Literature. A Comparative Study, (London: Methuen & Co., 1969) pp. 124-169; Kenneth Quinn, Texts and



Contexts: The Roman Writers and their Audience, (London: RKP, 1979) pp. 120-133; C. S. Baldwin, Renaissance Literary Theory and Practice, (Gloucester, Mass.: Peter Smith, 1959) pp. 155-189.

<sup>37</sup> For the outward form of a poem to mirror its theme was not unusual in the seventeenth-century. Cf. the 'pattern' poems of Herbert or, indeed, the complete collection of The Temple (1633).

<sup>38</sup> In the seventeenth century "whey" was not a term used exclusively in the dairy. It also referred to the watery fluid exuded by serous membranes (OED).

<sup>39</sup> Cf. the procession of virtues and vices, echoing Spenser, to be found in cantos VII-X of The Purple Island.

<sup>40</sup> The relationship between a "marginal" text and the "principal" or "capital" text is one that has become the subject of considerable debate in literary theory. It might be possible to think of The Purple Island as a form of "double-text" not unlike Derrida's Glas (Paris, 1974). Michel Riffaterre's discussion of Glas seems apposite to this discussion of Fletcher's poem since it too seems to demonstrate "interdependence between...two texts". See: Jaques Derrida, Dissemination, trans. Barbara Johnson (London: The Athlone Press, 1981) pp. 202-203; Michel Riffaterre, "Syllepsis," Critical Inquiry 6 (1980) pp. 625-638; Jonathan Culler, On Deconstruction, (London: RKP, 1983) pp. 139-140.

<sup>41</sup> Joseph Beaumont, Psyche (London, 1648). This, the first edition, does not contain the substantial revisions incorporated into the poem by Beaumont's son and which were said to have been made by Beaumont himself prior to his death in 1699. For an account of these revisions see: Joseph Beaumont, Psyche (London, 1702), "The Editor to the Reader".

<sup>42</sup> On Beaumont's ejection from Peterhouse College, in 1644, see: P. G. Stanwood, "Joseph Beaumont - A Portrait of Stuart Orthodoxy," Church Quarterly Review, 165 (1964) pp. 27-39.

<sup>43</sup> Joseph Beaumont, Psyche (London, 1648) sig. A4<sup>v</sup>.

<sup>44</sup> Psyche was begun in 1645, and completed by the spring of 1648. Beaumont himself had considered the poem so topical that he had thought of publishing it anonymously. See Stanwood, "Joseph Beaumont" pp. 35-9.

<sup>45</sup> See: Russell, pp. 377-382; Christopher Hill, The Century of Revolution, (London: Sphere Books, 1974) p. 105; Christopher Hill, God's Englishman: Oliver Cromwell and the English Revolution (Harmondsworth: Penguin Books, 1972) pp. 89-90; J. P. Kenyon, Stuart England, (Harmondsworth: Penguin Books, 1978) p. 160. Earlier negotiations



between King and parliament (Uxbridge, 1644-5; Newcastle, June 1646) might also have encouraged the fear of compromise displayed in Psyche.

<sup>46</sup> Compare the rebellious disarray of Psyche's subjects to Cowley's poetic account of a similarly divided anti-Royalist opposition in his unpublished treatment of contemporary events in The Civil War: Abraham Cowley, The Civil War, ed. Allan Pritchard (Toronto: University of Toronto Press, 1973) pp. 108-112. On the army's struggle to preserve a united front (represented by the Putney Debates) see: Derek Hirst, Authority and Conflict: England 1603-1658 (London: Edward Arnold, 1986) pp. 277-278.

<sup>47</sup> See Christopher Hill, The World Turned Upside Down: Radical Ideas During the English Revolution, (Harmondsworth: Penguin Books, 1975) p. 165.

<sup>48</sup> The politics of the body was, of course, a well-established notion long before Psyche appeared. See James I, The Trew Law of Free Monarchies (1598) passim. in his Works (1616); Sir Edward Forset, A Comparative Discourse of the Bodies Naturall and Politique (London, 1606); William Shakespeare, King John, II. 1. 206-234.

<sup>49</sup> See: P. G. Stanwood, "St. Teresa and Joseph Beaumont's Psyche," JEGP 62 (1963) pp. 535-550.

<sup>50</sup> Indeed, it has been suggested that Beaumont's "Devotional Poetic" as illustrated in Psyche is one shared by Richard Crashaw. See: David Trotter, The Poetry of Abraham Cowley (London: Macmillan, 1979) pp. 66-8.

<sup>51</sup> Joseph Beaumont, Original Poems in English and Latin, (Cambridge, 1749) p. 8. For a modern edition see: Eloise Robinson (ed.), The Minor Poems of Joseph Beaumont, (London: Constable & Co. Ltd., 1914).

<sup>52</sup> Beaumont's praise of Herbert is noted by Trotter, p. 67.

<sup>53</sup> George Herbert, Works, ed. F. E. Hutchinson (Oxford: Clarendon Press, 1941) p. 12.

Chapter Four: "To'our Bodies turne wee then": Dissection  
and Self-dissection in Donne's Writing.



## Introduction

In turning from Fletcher to Donne, we turn from a poet whose desire to chart the body, to fix its anatomy within a scriptural and historical framework, gives way to a poet who transforms the body into a scene of confrontation which is imaginative rather than historic. Though Donne's poems and Fletcher's Purple Island appeared in the same year (1633), the image of the human body which emerges from a comparison could hardly be more different. For example, we have seen how The Purple Island records the internal detail of the body. The human geography which is the setting for spiritual confrontation becomes a means of fixing that confrontation in a place and time whilst it also suggests that the spiritual warfare which takes place is universally recognizable.

Donne, too, registers in his poetry a desire to record the details of the body's construction. But in the act of recording Donne discovers an illustration of uncertainty, doubt, and the absence of fixed points by which the body can be charted.<sup>1</sup> The famous passage on anatomical confusion from The Second Anniversarie (1612) (ll. 269-280) might be cited here but a rather more graphic encounter with anatomical doubt (and one that registers the differences between the approaches to the body of Donne and of Fletcher) is to be found in Donne's "Obsequies to the Lord Harrington".

"The Obsequies" opens with an address to the departed soul of the dead Harrington, an address of which it could be argued (following Martz) that it also functions as the preliminary step in a meditative exercise - the composition of place.<sup>2</sup> But the opening lines of the poem also act as a form of invocation half-way between a prayer and a

solipsistic demand for attention from Harrington's soul: "See, and with joy, mee..." the poet urges. Having claimed Harrington's attention, the poem turns away from the initial object of contemplation towards a rival object which claims Donne's gaze. That rival object is revealed as the poet's own self:

Thou at this midnight seest mee, and as soone  
 As that Sunne rises to mee, midnight's noone,  
 All the world growes transparent, and I see  
 Through all, both Church and State, in seeing thee;  
 And I discerne by favour of this light,  
 My selfe, the hardest object of the sight. 3

"Obsequies" 25-30.

Imagining Harrington's soul's gaze to be directed upon himself, Donne follows that gaze, at the same time transforming it into a means of concentrating attention upon his own position within the poem's rhetoric. Harrington sees Donne, just as the moon rises to Donne. The combined influence of the soul's gaze and the moon's light transforms the world for the poet's eye into a "transparent" object of contemplation. The surface reality of human affairs ("Church and State") is penetrated. Having noted this transparency, though, Donne seizes the opportunity to turn not to the world, but to himself - "the hardest object of the sight".

Even though the poem moves on into the first stage of what is revealed as the poem's subject - virtue - it is with difficulty that Donne is able to drag his gaze back from the inward contemplation that he has initiated. So, in trying to fix the mercurial quality of virtue which is "fluid" and which "cannot be look'd on, / Nor can endure a contemplation" (ll. 43-44), Donne turns inward once more upon himself. In trying to uncover the fitting image for describing virtue, the body is evoked:



As bodies change, and as I do not weare  
 Those spirits, humors, blood I did last yeare,  
 And, as if on a streame I fixe mine eye,  
 That drop, which I look'd on, is presently  
 Pusht with more waters from my sight, and gone,  
 So in this sea of vertues, can no one  
 Bee'insisted on;

"Obsequies" 45-51.

Turning within himself is an action performed not out of a desire to make static that which refuses to remain still, but to uncover further images of motion and fluidity. Looking into his own body Donne sees a liquid mass of solutions mixing, changing, and flowing, so that the eye which tries to "fixe" any one drop is itself forced to move until the drop has merged back into the viscous mass from which it was singled out.

The contrast between this conception of the body and that of Fletcher in his epic could not be more marked. It is not only that Fletcher's work is informed by a sense of theological inevitability which is entirely absent from Donne, nor that Fletcher consciously evokes his poetic predecessors in a manner alien to Donne's writing. The difference, here, is one determined by two radically opposed perspectives which have nevertheless alighted upon the same object, though for different reasons. Where Fletcher looks to the body in the belief that it can, eventually, be made to reveal its geographic features, its political organization, and its own internal coherence, Donne finds only disorganization, unexplored territory, and incoherence. Nor does the difference in the two writers' perceptions of this common object rest at this distinction. In Fletcher's poem the body is owned by no-one, and possesses no privacy.<sup>4</sup> Thirsil had claimed the body to be "obvious to all", and saw his task as making strange this "native coast" which presupposes a public rather than an

individual private body. Donne moves from the opposite point on the scale, invoking a private body which is only with difficulty assimilated into the public arena. it is this sense of the private, individual, body to which John Carey seems to have responded in describing Donne's imagination as being one which "intrudes into (the body's) inner structures" so that the impulse which is observed is one which tends "towards vivisection". What Carey is remarking upon here is an anatomical intensity which comes close to violating rather than delineating the body: "the transforming force of Donne's viewpoint glares into the body's innocent depths with sinister delight".<sup>5</sup> In suggesting such ravishing intensity to Donne's gaze, Carey is also implying a view of the body which is enclosed or resistant to casual scrutiny.

We should not, perhaps, be surprised that Donne's view of the body, in contrast to Fletcher's (or, for that matter, to Spenser's) is informed by a paradoxical desire both to assert and to fracture its privacy. Once it is grasped that the body in question does not exist within a public domain, but is in fact an imaginative transformation of the poet's own body, the tension between public utterance and private reticence becomes a little more understandable. Donne's response to anatomy, as I hope this chapter will indicate, is bound up with a sense of his own body's susceptibility to division and dissection. In this, what might be termed self-anatomy, Donne is unique amongst the seventeenth century poets who turned to the anatomist's arts. But in turning inwards upon himself Donne was to discover striking images and metaphors whilst at the same time he was to explore a strand in the presentation of the body which he alone, amongst the poets, seemed to have shared with the anatomists.



Donne's critics and his anatomy

Donne's attraction towards medicine in general, and his knowledge of contemporary medical practice, was a factor which his earliest commentators felt worthy of notice.<sup>6</sup> But twentieth-century criticism has not responded wholeheartedly to Donne's anatomical impulses. D. C. Allen, observing that Donne seemed to have possessed a psychological urge to "explore his own viscera" remarks that this recourse to the language of the anatomy theatre, the charnel house, and the sick room sets Donne apart from "even the sicklier poets of his own age". In much the same way, it is with a sense of relief that Ellrodt turns from Donne to Traherne, a poet who "when he celebrates the human body...fortunately abstains from using the scalpel". Donne's penchant for the scalpel is, for Frank Kermode, an example of "hospital wit", but for D. H. M. Woolam it is evidence for something rather more sinister. Donne, Woolam claims may be "of particular interest both to the historian of medicine and to the student of abnormal psychology".<sup>7</sup>

Leaving matters of psychological speculation aside, these modern accounts imply that Donne's anatomizing impulse revealed in his poetry is a quality unique to his own oeuvre. More sympathetic discussion of the topic, however, turns on the still-vexed issue of Donne's position in relation to what may be seen as two contrasting ideologies - new as opposed to old science.<sup>8</sup> Schleiner has attempted to avoid this debate altogether in allowing Donne's interest in medicine to be no more than that of an educated layman's response to what could be read in popularizing medical treatises of the day. When Donne employs terms such as anatomy, antidote, dissect, fever, and gangrene, Schleiner argues, these are not evidence that Donne "took a special

interest in medicine". Rather, such terms "occupy free positions in a field of imagery that is already well established in Christian tradition".<sup>9</sup> This christian tradition is evoked by Barkan when he discusses the application of the microcosm/macrocosm analogy to Donne's poetry. Correspondence, Barkan writes, is "the pillar of the old science, whether in the harmonistic form of St. Gregory's 'homo omnis creatura' or the more bewildering diversity of Pico or Paracelsus". To argue thus is to enter the debate on old and new science and its relevance to Donne, a debate which Barkan enters with relish in commenting that "poets of the time are reacting less to the advent of the new than to the last exaggerated gasps of the old".<sup>10</sup> Indeed, Barkan uncovers a special attractiveness in conservative scientific ideas when applied to discussions of Donne's poetry: "the more out-of-date the idea becomes as science, the richer it is as a convention between poet and audience".<sup>11</sup> Whilst an old idea may possess the virtue of familiarity, this does not mean that an unfamiliar idea is redundant, as Barkan seems to suggest, as a metaphor in poetry. To take an obvious example, it hardly seems incumbent upon readers that they understand the distinction between fission and fusion if the poet chooses to develop a metaphor based on nuclear devastation.

Numerous attempts to approach the topic of Donne's general response to medicine have been attempted from the point of view of biography. There has been speculation on the question of whether or not Donne knew William Harvey, or whether Harvey may even have been Donne's physician during the illness out of which came The Devotions Upon Emergent Occasions of 1624.<sup>12</sup> Though it might be interesting to know whether the King's chaplain and the King's physician were in contact, the point of such speculation must be to uncover whether or



not Donne made use of Harvey's ideas in his writing. There is certainly negative evidence which points in the opposite direction. Donne, for all his love of circles and circular motion (see, for example the concluding lines of "A Valediction: Forbidding Mourning") never once mentions the most exciting circle which seventeenth century science observed - the circular flow of blood in the body.<sup>13</sup> It can be assumed that Donne was, however, well-read in the standard medical literature which substantiates his ironic reference to his "physick bookes" in "The Will".<sup>14</sup> But Donne's reading, to recall Schleiner once more, may not have been unusual.

Circumstantial evidence of Donne's connection with medical circles has been produced by a number of his commentators. Donne's stepfather, Dr. John Syminges, was both a successful London physician and President of the Royal College of Physicians. In 1582 four meetings of the Royal College took place in the house where Donne was living, but it is probably worth keeping in mind the fact that Donne was ten when these meetings took place. Too much should not, therefore, be made of the oft-quoted fact that at one of these meetings, that of 3 August 1582, the legal documents which established the Lumleian lectures were signed.<sup>15</sup> Later in life, after his appointment as Dean of St. Paul's in 1621, Donne's house lay adjacent to the College of Physicians' new buildings at Amen corner to which they had moved after vacating their old premises in Knightrider Street in 1614. It was in these buildings that lectures in anatomy were given, including Harvey's Lumleian lectures of 1616.<sup>16</sup>

In the end Donne's formal connections with medicine, physicians, and anatomists are subjects for scholarly conjecture. The most that can be said with certainty is that he had read Paracelsus, as is clear

from the references to the author of the Chirurgia Magna (1573) a copy of which Donne owned, and that he possessed a number of medical texts.<sup>17</sup> There is no direct evidence that Donne had anything other than a casual acquaintance with the more important anatomical texts.

Even where a clear link seems to be established in Donne's writing between old or new science, that alone is not evidence for his ideological inclinations. It need hardly be said, with this point in mind, that the microcosm / macrocosm analogy (so often cited as proof of Donne's adherence to an older framework of belief) did not simply vanish overnight, to be replaced with the clear light of Baconian reason. Harvey himself, in 1628, had described the heart as the sun of the microcosm, and as late as 1660, the English surgeon Jackson thought it worthwhile to translate Berengarius's Isagoge Breves, (a work first published at Bologna in 1522 and indebted to microcosmic patterns of thought) as a "directory to young practizers of anatomy".<sup>18</sup> It seems that we must return to Donne's writing with the question of the nature of his response to anatomy still at issue.

### Dissecting the Self: The Songs and Sonnets

The poem "Loves Exchange" closes with an imaginative plea to Love to partition the body of the poet. This plea is conceived of as a means of ending the torture which the poet endures, and a scattering or reduction of the body into pieces. "Love is enrag'd with mee, / Yet kills not" Donne writes, and he concludes:

If I must example bee  
To future Rebels; If th'unborne  
Must learne, by my being cut up, and torne:  
Kill, and dissect me, Love; for this  
Torture against thine owne end is,  
Rack't carcasses make ill Anatomies.

19

(Poems p. 35)



The final line, it might be noted, has a macabre accuracy to it, given (as we have seen) the method of supply of anatomical material. But this concluding image of the poet's body "cut up and torne" is characteristic of the means by which anatomy enters Donne's verse. What seems, at first, to be a contemplation of self-reduction, an effacement from the text which is completed through imagining one's own body robbed of its integrity, is in fact no such thing. Instead Donne manages to suggest, in his image of anatomization, the direct opposite of effacement. No longer merely the victim of Love, Donne has become an "example" not just to the present but for the future as well. Even if he also manages to suggest that the position into which he has been placed is one he would not willingly have adopted (If I must...), his central position within the poem's rhetoric is actually confirmed through being dissected. The poet's divided body functions as a means of preserving the victim of love for the future.

It is true, of course, that it is not an anatomized poet who speaks at the end of "Loves Exchange". The image of dissection which the poem presents as it draws to a close is couched in the form of petition. The same is not true of two much less well-known poems, one earlier than Donne's the other probably slightly later, which also develop the metaphor of the anatomized lover. The earlier poem, anticipating Donne's petition, is by George Gascoigne and was published c. 1573. The poem, known as "Gascoigne's Anatomie" begins:

To make a lover knowne, by playne Anatomie,  
 You lovers all that list beware, lo here behold you me.  
 Who though mine onely lookes, your pittie wel might move,  
 Yet every part shal play his part to paint the pangs of love.

The poem then moves through the various parts of the poet's body, detailing the havoc which has been wrought on each area, progressing

from the head down to the feet. It concludes with the "gazing eye" of the poet contemplating the object of its desire ("the boure, wherein my love doth dwell"). By feeding upon the sight of the mistress the hungry corpse is finally allowed to expire:

. . . . . feede my gazing eye,  
And so content my hungrie corps tyll dolours doe me die:  
Yet for a just reward of love so dearly bought,  
I pray you say, lo this was he, who love had worn to nought.

20

What seemed at first to be the voice of the walking dead is qualified by the end of the poem. The poet is anatomized, but not quite dead, since there is still enough breath to pronounce the poem which thus becomes the poet's own epitaph. The concluding line (which could equally appear on a tomb as in this context) anticipates the reader's response to what is a memento mori rather than a memento amore. In effect, the final line of the poem reveals the verses to be in the nature of a funerary inscription, or, as Geoffrey Hartman phrases it (here in the context of Wordsworth's inscriptive verse) "we are made to hear the admonitory voice of the deceased or of the living who speak for the deceased".<sup>21</sup>

The poem is spoken by an anatomy, who details his own division, and who then claims that the reader's marking of the spectacle is itself a "just reward" for enduring the process which has been so lovingly described. This claim on the reader's attention is not so different to the claim which Donne's anticipation of division in "Loves Exchange" makes on future generations of lovers. In both cases, the division of the body (before or after death) is a means whereby the poet ensures that the body is kept in the centre of the poem's argument.



The later poem in this vein is the product of a poet whose work we have already met - John Davies of Hereford. Sonnet 33 in Davies' collection entitled Wittes Pilgrimage (1605) addresses a mistress who, it transpires, is also an anatomist:

Ynough (fell faire!) for, thou hast done the Deede  
That thou hast longe bin doing, which doth make  
Thy mercy lesse, for that, to kill with speede  
Shewes more remorse then they that leasure take.

Just as in Donne's poem, it is the lingering quality of the anatomization in love which is cause for comment. But Davies' poem is also like Gascoigne's in that this is the voice of the dead lover which forces itself upon our attention. Or so it seems until, like Gascoigne's complaint, we reach the concluding lines. The mistress' scalpel has reached every part of the poet's body:

Who have bin so Anatomiz'd by thee  
That every Nerve hath felt thy Rigors hand!  
Out of my Hart, and Braines that hand hath squiz'd  
The Spirits that either Life, or Sence maintain:

But despite this drastic operation, some life paradoxically remains. In fact the anatomy is incomplete, the mistress is still killing, as the enigmatic conclusion of the poem tries to suggest:

For, I am all as dead, as Unadviz'd:  
Only, for Thee, I Life, in show retain.  
And if thou wilt have That, sith That's for Thee  
Then take Thou all, and leave the rest for mee. 22

The quibbling conclusion (is he dead or isn't he?) is an inevitable result of the poem's attempt to give the voice which enunciates the poem some logical rapport with what the poem claims. The poet, literally, cannot be dead otherwise the poem could not be spoken. This confused impasse Gascoigne was able to slip around by imagining

his own epitaph, and Donne avoided altogether by imagining the future possibility of anatomization.

What brings the three poems together, however, is a common feature which they share - the possibility that the reduction of the body through division may work in the opposite way to that which one would normally expect. In this respect all three poems are responding to what is a basic element of the anatomy theatre. Within the renaissance anatomy theatre, it should be recalled, what is offered is not only an investigation of the body, but a demonstration. Such a demonstration presupposes a body, and an anatomist, but also an audience. We might recall, here, the theatricality of the renaissance anatomy lesson and the way in which the physical construction of the anatomy theatre focused the attention of the audience on the spectacle which took place before them, and which they encircled.

The depiction of an anatomy lesson which appeared on the title-page of De humani corporis fabrica when it was published in 1543 emphasises the demand on the audience's attention which the spectacle of the anatomized corpse made. (Fig.5)<sup>23</sup> Francis Barker's discussion of Rembrandt's painting of The Anatomy Lesson of Dr Nicolaas Tulp, which records the anatomization of Adrian Adriaanszoon, following his execution for theft in January 1632, is pertinent here. Barker writes that "a body is being made to signify" within the confines of

a ghastly tableau, close to tragedy, which was in fact produced in a theatre in Amsterdam before an audience who had paid for their tickets,...and whom the anatomist Tulp, his left hand raised in indication of speech, addresses across this public body.

24

The three anatomized-lover poems we have been considering seem to function in a comparable way. In "Loves Exchange" Donne's body is



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imagined as being made to signify through the punishing spectacle of division.. Where, however, Donne's dissection differs from that of Adriaanson (and where we might begin to question Barker's "reading" of Rembrandt's painting) is that in the case of the poem the position normally occupied by the corpse is one which the subject actively pursues. In this sense, the anatomization which is depicted is not (as Barker, following Foucault, suggests) a demonstration simply of "jurisdiction over the body...an act of penal and sovereign domination".<sup>25</sup> Instead it is also a process in the opposite direction - a preservation of the body's signification through the paradoxical contemplation of its dissolution into its constituent parts.

This assertion of the dissected body's significance was one that Donne turned to with some frequency in the "Songs and Sonnets".

"The Dampe", for example, opens with a gathering of friends united around a common object of scrutiny - the poet's corpse - which they proceed to open:

When I am dead, and Doctors know not why,  
And my friends curiositie  
Will have me cut up to survay each part...

(Poems, p. 63)

One does not, here, have to appeal to the literal possibility of such a family post-mortem to understand the rhetorical device which Donne is developing. Again, it is the significance of his own dead body which is insisted upon. This significance only becomes apparent through the body's transformation into an object for study and dissection. The dissection which takes place in the poem serves to re-inforce the potency of the divided body since it is only through anatomization that the onlookers penetrate down to the heart where they find



"your Picture" (l. 4). The discovery is lethal for the surrounding onlookers:

a sodaine dampe of love  
Will through all their senses move,  
And worke on them as mee, and so preferre  
Your murder, to the name of Massacre.

(Poems, p. 63)

The discovery of the mistress's image, the agency of the poet's death, precipitates a companionable death amongst Donne's onlookers. Even if the source of death is to be attributed to the woman, the means of conferring death upon others is attributable to the divided body.

Introducing the subject of his own death into his love poetry was, of course, one of Donne's more characteristic tropes. "The Apparition" begins by imagining an inevitable future in which the poet is dead, killed by the mistress ("When by thy scorne, O murdresse I am dead"), similarly "The Expiration" turns into a plea for death, charged with hyperbole and sexual ambiguity ("Ease me with death, by bidding mee goe too."). "The Funerall" imagines the re-discovery, in the future, of the poet's corpse, where the "subtile wreath of haire" wound around the corpse's arm becomes "a mystery", a "signe" which helps to preserve the body, imagined as a geographical province once controlled by the lover, from "dissolution". Dissolution of the body is the fate which the poem is struggling against. But, paradoxically once more, to understand how the body can be preserved from such a fate it is first necessary to open it, and to follow the devices which guard against dispersion:

For if the sinewie thread my braine lets fall  
Through every part,  
Can tye those parts, and make mee one of all;  
These haire which upward grew, and strength and art  
Have from a better braine,  
Can better do'it;

(Poems, p. 58)

From the position of "homo mundus" claimed in the first part of the poem, Donne has moved into the body, and begun to search out the details of the microcosm. Helen Gardner has noted that, in the seventeenth century, a "sinew" could denote either ligaments or nerves.<sup>26</sup> Donne though is not so precise. The thread is "sinewie" suggesting texture rather than physiological function. The function of such a thread which the "braine lets all" is to conduct the vital spirit, the via media between the gross physical substance of the body and the purer matter of the soul, throughout the frame.<sup>27</sup> Within the poem this information sustains a metaphor which works to suggest how the relic of hair is able to perform a similar operation. The "subtile wreath" can itself "tye those parts" a phrase which brings to mind the anatomist's distinction between similar and dissimilar parts all of which are bound together to form the individual. In "The Extasie" the spirits are "fingers" which tie "that subtile knot, which makes us man" (Poems, p. 53). In both cases, what is at issue is the disruption of the body, the process by which it loses its integrity (whether physically or spiritually - a distinction which the poems often purposely confuse). To examine this process, however, it is first necessary to disrupt the surface of the body to begin with. Once more the paradox becomes apparent - to unify the body it must first be divided.

This paradox is played out to the full in Donne's "A Valediction: Of my Name in The Window", a poem which explores the preservation of the body through contemplating its potentiality for division.<sup>28</sup> Here, though, the preservation of the body is initially imagined as being a preservation effected in the memory of the mistress to whom the poem is addressed. As an aide memoire, Donne leaves his name, scratched



in the glass of the window. The scratched name in the glass mirrors, he claims, his own durability of purpose towards the woman: "My name engrav'd herein, / Doth contribute my firmnesse to this glasse,". If the hardness of the glass reflects one aspect of his character - durability - it also reflects another aspect of his self-presentation: transparency. Just as in the "Obsequies to the Lord Harrington" transparency and hardness, the qualities of glass (or diamond - the medium by which the name is cut), are claimed as the chief virtues which the poet himself possesses. But glass has another quality - the ability to reflect:

'Tis much that Glasse should bee  
 As all confessing, and through-shine as I,  
 'Tis more, that it shewes thee to thee,  
 And cleare reflects thee to thine eye.

(Poems, p. 26)

This realisation that the woman may look at the window, but see through it, or else see only herself, initiates the subtle destruction of her character which the poem slowly works toward. The problem of preserving himself in the mind of the woman once he has gone is attacked in the fourth stanza, where we sense that Donne believes her not only to be vain but also a poor reader of the sign that he has left in the window-pane. Perhaps scratches in glass are not substantial enough to preserve his memory?

Or if too hard and deepe  
 This learning be, for a scratch'd name to teach,  
 It, as a given deaths head keepe,  
 Lovers mortalitie to preach,  
 Or thinke this ragged bony name to bee  
 My ruinous Anatomie.

(Poems, p. 26)

We have been prepared for this transformation of the name into an anatomy through the insistence on transparency. Offered almost in

exasperation, a final attempt at providing the woman with a sign she will understand, the figure of the "bony name" now dominates the poem's argument. Where Donne first thought of his name as being a satisfactory means of preserving his memory, he has dismissed this figure in favour of something more substantial - his anatomized self.

Having fixed upon this trope he can now pursue the anatomical reduction he has embarked upon. This reduction is conceived of as an appropriation by the woman of some vital part of himself - the soul (or more precisely the three powers of the soul) - of which the anatomy which he has left in her keeping is a token:

Then, as all my soules bee,  
Emparadis'd in you (in whom alone  
I understand, and grow and see,)  
The rafters of my body, bone  
Being still with you, the Muscle, Sinew, and Veine,  
Whi~~ch~~ tile this house, will come again:

(Poems, p. 26)

Soulless, and boneless, the anatomical reduction of the poet's body is complete. As he shambles away the figure he imagines himself to be is that of a body separated out into its constituent parts, suggesting that the woman's possession of part of his anatomy entails a reduction of the body as a whole.

Having disappeared from the poem altogether in the fifth stanza, the anatomized body reappears in the following stanza to be recompact. At this, the mid-point of the poem, the operation which the body undergoes is imagined in terms of the resurrection of the body - a re-collection of the various parts which have been separated in the first half of the poem: "Till my return, repaire / And recompact my scattered body". The secular application of the christian idea is a continuation of the image which has been introduced in the preceeding stanza. The body is



re-united, on its return, with its soul which has already been "emparadis'd", and in this re-unification it also regains its integrity.<sup>29</sup>

The playful series of figures which the poem has moved through up to this point are summarised in the seventh stanza. But from now on the reasoning which has underpinned the anxious demands which Donne has been making on the woman's powers of reading, understanding, and memory, are made clear. The anatomical reduction which the poem has presented, it transpires, is also the anatomization of a love affair which has run its course:

So since this name was cut  
When love and grief their exultation had,  
No door 'gainst this names influence shut;  
As much more loving, as more sad,  
'Twill make thee; and thou shouldst, till I returne,  
Since I die daily, daily mourne.

(Poems, p. 27)

The "boney anatomy" of the engraved name will teach (and we might remember the teaching function of all anatomies) the woman daily to mourn the poet's absence. Or, at least, she should mourn his absence. The suspicion is that she will not ("and thou shouldst"), but will prefer to shut the door on the name's "influence". Having shut the door in this stanza, she opens the window in the following stanza to a new lover: "...thy inconsiderate hand / Flings ope this casement". The name is ignored, it is left "trembling", in a sexual limbo of shut doors and opened windows which admit a new relationship and which exclude the poet.<sup>30</sup>

In other words, as the poem turns towards its conclusion, the whole elaborate superstructure of names, engraving, bones, and anatomies, has been ~~useless~~: "...glasse, and lines must bee, / No

meanes our firme substantiall love to keep". In the context of what has gone before, the idea of the love being "firm" and "substantiall" appears as somewhat ironic. But the whole poem is, in any case, ironized when we realise that what had appeared as a direct address to the lover is in fact a dream: "And this I murmure in my sleepe" and is to be dismissed as such: "Impute this idle talke". In fact, as the ending of the poem makes clear, the poet and the woman are already separated, and the affair may already have ended, or at least that is the suggestion of the final line: "For dying men talke often so".

The position which Donne elects to adopt in "The Valediction: of my Name in the Window" is, by now, a familiar one. The poem's theme is absence, more specifically it is a poem which conjures with the idea of the poet's own absence from the proceedings. In asking the anxious question "What will she do when I'm not there?" Donne has both imagined the worst, "treason", and then attempted to force himself back into the poem and back into the woman's mind. Written in absentia, the central image of the poem is that of anatomical reduction expressed through the insubstantial image of the skeletal name in glass. Again, the paradox which lies at the heart of all Donne's images of anatomy and self-anatomy is apparent. To preserve himself within the poem's argument he imagines himself first like glass, and then reduces himself to a "ruinous anatomy". Unwilling to efface himself from the poem, and yet already absent, he attempts the next most desirable course of action. A part of himself is left behind guarding, as it were, his interest while his scattered body is able thus to stretch his presence. The irony, of course, lies in the fact that the whole teasing argument is dismissed by the poet himself. A divided presence, it appears, is hardly better than a complete



absence.

In all the images of self-anatomy in the "Songs and Sonnets" which we have been examining so far, the position which Donne has claimed as his own is one of the two possible centre-stage roles in the anatomy theatre. This sense of demanding a central role in the proceedings, a role which is fulfilled first through the poet imagining his own death, and then imagining the method by which his corpse can be transformed into an "example", or an object of "curiositie", is a demand which the renaissance anatomy theatre was peculiarly suited to encourage.<sup>31</sup> The illustrations of the Leiden theatre, and the title-page of Vesalius' Fabrica indicate how the dissected corpse, the focus of attention, was made to signify. The lesson which it taught was, of course, a lesson in physiological function. But, as the Leiden dissections make clear, utilitarian study of the human body was placed within an iconological context which sought to emphasise the moral dimension of the proceedings. The anatomist who stands between the corpse and the open text-book is interpreting the structure of the human body, but he is also interpreting that structure within a framework which is spiritual, figurative, architectural, geographic, and political. In the case of Phineas Fletcher, for example, it is possible to see how a number of these significations (the spiritual, political, and geographic) could be explored through the medium of poetry.

Donne's treatment of the topic, however, is somewhat different. Though he could, and did, evoke the body in terms of geography, his response is essentially one that brings to mind the drama of the anatomy theatre.<sup>32</sup> That drama is one that seems to be a product of the confrontation between anatomist and corpse which their very

proximity encouraged. This was not always the case. Certainly, before the Vesalian methods of practical dissection were adopted, the anatomy theatre constituted little more than a display of authority. A contemporary illustration makes this distinction clear. Johannes de Ketham's Fasciculus Medicine shows an anatomy lesson taking place in the pre-Vesalian style. (see Fig.6).<sup>33</sup> Allowing for the different artistic conventions at work in this and the Vesalian woodcut, two totally different approaches to anatomy are displayed through a comparison between the two. In the illustration, anatomist and corpse are separated physically and intellectually. The anatomist, raised above the corpse in the Professorial chair, pronounces upon the structure of the body without reference to the actual body which is below him.<sup>34</sup> The business of dissecting the corpse is undertaken not by the anatomist, but by assistants, one of whom opens the cadaver whilst the other details the features which the lecture is covering. Though no book is shown, such a dissection would involve the anatomist in reading from the classical medical corpus, rather than examining the body itself.<sup>35</sup> It can be noted how the audience, here, are shown to be virtually uninterested in the proceedings which are taking place. Neither the display of authority above them, nor the reduction of the body in front of them, command their attention.

The Vesalian illustration (or for that matter Rembrandt's Anatomy Lesson of Dr. Nicolaas Tulp) transforms this process (Fig. 5). Physically, the anatomist has moved. Vesalius stands next to the corpse, forming a centre of interest for the ranks of spectators which surround him. Iconological discussions of this illustration have shown how it not only represents an anatomy lesson (however idealized), but how it also seeks to demonstrate elements of the "new anatomy" of



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Vesalius. Beneath the table, for example, are two squabbling figures who have been taken to represent the Galenic assistants who once performed the actual dissections but who are now made redundant through the active part which the anatomist displays in the proceedings. The alarmed naked figure on the left of the illustration, clutching the pillar, is taken to be a representation of surface anatomy - an important point of study in the Vesalian programme. The animals which appear in the illustration allude to the contemporary practice of using animal material as an aid to human dissection.<sup>36</sup> But perhaps the most important feature of the illustration is the presence of the skeleton which dominates the illustration. This skeleton, intruding into the proceedings in a manner reminiscent of the skeletons which formed part of the decoration of the Leiden theatre, may be taken as a memento mori in keeping with the moral lesson which anatomy also sought to encourage. Vesalius' early skeletal figures in the Fabrica, for example, though they sought to be accurate representations of the human skeleton, were also undoubtedly designed to encourage the readers' sense of mortality. Fig. 7 shows the second of the complete osteological figures from the Fabrica (Bk. I, ch. 1) - a "skeletal Hamlet soliloquizing beside the tomb upon some poor Yorick".<sup>37</sup> This response is confirmed when it is realised that in the original version of this figure, the tomb bore an appropriately moralizing inscription: "Vivitur ingenio, caetera mortis erunt" - "Genius lives on, all else is mortal".

In the Vesalian illustration of the anatomy theatre, however, the skeleton performs a dual function. In part it is a reminder of the mortality which is being explored in the very conduct of the anatomy lesson. Iconologically, though, the skeleton may here be



interpreted within the context of the two styles of anatomy which a juxtaposition of de Ketham's and Vesalius' illustrations demonstrate. The skeleton is shown at the centre of the illustration, raised above the corpse, in the same position which would formerly have been occupied by the authoratative figure of the pre-Vesalian lecturer. For this Vesalian audience its presence is, at best, an incursion - a point which is made dramatically by the response of the figures which surround it. In their endeavours to witness the detail of what is taking place in the dissection, one figure peers from between the skeleton's legs, another watches from beneath the raised right arm of the figure, and a third actually pushes the bony left hand of the skeleton out of the way with his head so that he can gain an unobstructed view of the dissection. If the skeleton is a memento mori, then it is a reminder of mortality of which Vesalius' watchers are blissfully unaware. The pre-Vesalian figure of authority has been banished, reduced to a bony figure who is ignored. The centre of activity is transferred to the confrontation which takes place between anatomist and corpse.<sup>38</sup>

This discussion of the way in which the anatomist's central role in the anatomy theatre was encouraged in the 'new' methods of Vesalius may help to explain the attraction which the anatomy theatre held for Donne. The images of death which Donne introduces into his love poetry are very rarely static representations of the renaissance exploration of the "platonic theory of love as a key to a philosophy of death".<sup>39</sup> The anatomy theatre explored the possibility of death being a means by which the corpse could still preserve itself as a vital centre of attention for the beholders. In much the same way, when Donne presents himself as dead, and then divided, the process is





seen as a way of calling attention to himself as living. Whether it is the attention of friends, physicians, mistresses, future lovers, or the reader, the effect is the same. Donne's scattered body attempts to hold their attention in the same way that the audience in the actual anatomy theatre were asked to respond to what they witnessed.

In stating this, however, it is possible to see Donne advancing the process one stage further. We have considered him, up to this point as the subject of anatomy. In the next section I should like to examine the method by which Donne also sought to usurp the anatomist's as well as the corpse's role in the theatre.

#### "Physition and Patient": Donne as his own anatomist

Considering Donne as the subject of an anatomy, or concentrating upon those images in his poetry which present the poet's body as disrupted or scattered, should not lead us to ignore Donne's other response to the anatomy theatre. The corpse's part is one role that Donne could appropriate, but so too is the part of the anatomist. The anatomist's store of information was always to hand for Donne. It was there to be raided for a curious precept, or a dramatic illustration. We can find this tendency not only in his poetry but also (if anything in a more exaggerated form) in his prose writing. So, the schism in the christian church can be compared to a wound on the body which refuses to heal properly (Essays, p. 50-51).<sup>40</sup> Considering Biblical Law, elsewhere in the Essays, Donne turns to the body for an illustration of his argument:

It is true that Laws were many; for, as the frame of the body hath 248 bones, so the body of the law had so many affirmative precepts...It hath also 365 negative precepts; and so many sinews and ligatures hath our body.

(Essays, p. 94)

On the question of the number of bones in the body, Vesalius, for one had grown bored with the whole dispute: "If you count all the bones as seen in children, Good God, what a great pile of bones you will heap up!" he is said to have exclaimed.<sup>41</sup> For Donne, though, the question admits no areas of doubt. The body of the law is supported by its 248 affirmative precepts, and strung together with its 365 negative precepts, to present a harmonious whole. It may be complex, just as the body is complex, but it is finite, ordered, and in the end susceptible to analysis.

Informing a comparison such as the one Donne makes between the law and the body is the idea of the microcosm. In the Essays (first published in 1651, but possibly composed in 1614-15),<sup>42</sup> correspondence is ever-present. But correspondence relies upon the wit of the observer for its discovery. Danger may lie in the exercise of such wit, as Donne suggests in recounting the anger of Georgius on discovering that a peculiarly apt correspondence between the proportions of the human body and Noah's ark had already been noted by St. Augustine (Essays, p. 32). Priority is what the discoverer of correspondence claims, since otherwise observation is reduced to commonplace. The problem, then, is to uncover correspondence, but to be aware of the limitations of the method. The study of the liber creatorum may indeed be safer than the study of the bible, since "it cannot be falsified by Hereticks" (Essays, p. 7), but the limitations on such study are imposed by the human possibility of error:

Such are they which would arrive at God by this world, and contemplate him onely in his creatures, and seeming Demonstration. Certainly, every creature shewes God, as a glass, but glimmeringly and transitorily, by the frailty both of the receiver, and beholder: Our selves have his Image, as Medals, permanently, and preciously delivered. But by these meditations we get no further, than to know what he doth, not what he is.

(Essays, p. 20)



The transparency of the world, or of himself, may be the poet's illusion. If we are to conceive of ourselves as glass, Donne suggests, then we must keep in mind the possibility that glass (here conceived of as a mirror) may reflect a shifting or hazy image of God. Skill in interpreting the image which the glass reveals is required. Skill, though, is what cannot be taken for granted in the case of the human observer. "Man" Donne maintains "...sees all but himselfe...but so dimly, that there are marked an hundred differences in mens Writings concerning an Ant" (Essays, p. 14).

The point is that Donne senses the possibility of analysing the world, or at least of submitting it to the process of division, but he also senses that such a process may not be performed on God. Correspondence, too, begins to break down at the moment when it is submitted to careful, point by point, scrutiny. God may be submitted to a comparison, or a simile, since He has sanctioned such an undertaking in the scriptures.<sup>43</sup> But He cannot be submitted to an anatomy. Hence, in the Essays, the assertion that God is "absolutely simple" (p. 62). God is not a compound body made up of similar and dissimilar parts which can be divided from one another, but exists in a form which will defy the scrutiny of the anatomist.

It is as though God defines the outer limits of anatomy for Donne. It is impossible to separate God into constituent parts, since He is not made up of a combination of organs. We can find Donne returning to this idea in one of his late sermons (possibly delivered on Christmas Day, 1629) when he observes that God contains no inward parts:

...there is never braine, nor liver, nor spleene, nor any other inward part ascribed to God, but onely the heart. God is all heart...And then, though in the scriptures, those bodily lineaments, head and feet, and hands, and eyes,

and eares be ascribed to God, God is never said to have shoulders; for...shoulders are the subjects of burdens, and therein the figures of patience, and so God is all shoulder, all patience.

(Sermons, IX. p. 135)

To conceive of God as an enormous shoulder, or an infinite heart, is, once more to remove Him from the scope of the anatomy theatre.

Within a rather broader christian context, the anatomical reduction of the divine can be seen as verging on the blasphemous. If God cannot be anatomized, then neither should Christ. Yet, Donne claims, the christian who is selective in belief is performing such a dissection:

...and for matter of beleefe, he that beleeves not all,  
Solvit Iesum, as S. John speakes, he takes Jesus in  
peece, and after the Jews have crucified him, he  
dissects him, and makes him an anatomy.

(Sermons VIII. p.146)

Schleiner (p. 83) has called attention to Donne's translation of the neutral latin verb 'solvere', which occurs in 1 John 4. 3., as "dissect". To dissect Christ, is to separate the parts of christianity from one another, a figurative anatomization which would be to continue the punishment inflicted upon Christ beyond crucifixion.

If God and Christ may not be brought into the anatomy theatre as corpses, they may, nevertheless, be conceived of as entering the theatre in another guise - as anatomists. In the "Holy Sonnet" 5 ("This is my playes last scene"), Donne's body is separated in death, by Death: "...gluttonous death, will instantly unjoynt / My body, and soule..." (Poems, p. 324). This is not just a separation of body from soul, but, as the word "unjoynt" insists, a type of dismemberment. Body and soul are divided from one another, in an instant, but each is also divided within itself. If it is objected that soul's cannot



have limbs, then Donne has an answer: "By S. Basil's example, we may boldly proceed farther: Membra etiam animae sunt, sayes he: the soule hath her limbs as well as the body..." (Sermons V. p. 353). In the Holy Sonnet, it is Death who performs the dissection, but God and Christ also possess anatomist's skills. The divine anatomy which God performs, however, is different in substance from human anatomy. "God's Method" is, paradoxically "to preserve by destroying":

God's first intention, in the most distastefull physick, is health; even God's demolitions are super-edifications, his anatomies, his dissections are so many re-compactings, so many resurrections; God windes us off the skein, that he may weeve us up into the whole peece, and he cuts us out of the whole peece into peeces, that he may make us up into a whole garment.

(Sermons, IX. p. 217)

God's mastery of artisan trades is absolute. A demolisher of houses, an anatomist, a spinner, a weaver, and a taylor, God's purpose is always towards completion. Preserving the whole, or composing the whole, is His end. Thus, the anatomy which God performs is, paradoxically, the reverse of human anatomization. Divine anatomy tends towards wholeness rather than division. But in the care with which God scrutinizes the human frame, He may be compared to the human anatomist. What both God and the anatomist share is scrupulous attention to detail:

As the body of man, and consequently health, is best understood, and best advanced by Dissections and Anatomies, when the hand and knife of the surgeon hath passed upon every part of the body, and laid it open: so when the hand and sword of God hath pierced our soul, we are brought to a better knowledge of ourselves...

(Sermons, IX. p. 256)

But, again, the human anatomy and the divine anatomy are not exactly equivalent. The surgeon hands <sup>lays</sup> upon the body, but his tool is

the knife. When God's hand performs a similar operation, the preferred tool is a sword. God's anatomies, then, are not directed towards the discovering of the body's geography (he must already know it), but they also punish the material which is divided. God is perhaps best conceived of, in these images, as an anatomist exercising judicial power over the body and soul. In this, as we have seen, he was rivalled by the human anatomist whose material was made available only through the rigours of the law upon the body of criminals.

It might be possible to tabulate all the medical and anatomical references in Donne's writing, but the point would remain one that can be deduced from a relatively unmethodical scrutiny of Donne's work.<sup>45</sup> The body was a source of enduring fascination for Donne, but even whilst he is registering its internal features, his attention is caught by the processes by which the body can be made to signify. In a remarkable (and oft-cited) passage from one of the sermons we can see that imaginative fascination with process at its most extreme. Here Donne is considering the resurrection of the body:

Where be all the splinters of that Bone, which a shot hath shivered and scattered in the ayre? Where be all the Atoms of that flesh, which a Corrasive hath eat away, or a Consumption hath breath'd, and exhal'd away from our arms and other limbs? In what wrinkle, in what furrow, in what bowel of the earth, ly all the graines of the ashes of a body burnt a thousand years since? In what corner, in what ventricle of the sea, lies all the jelly of a Body drowned in the general flood? What cohaerence, what sympathy, what dependence maintaines any relation, any correspondence, between that arm that was lost in Afrique or Asia, scores of yeeres between?

(Sermons, VIII. p. 98)

It is, of course, God who is able to provide an answer to Donne's questions, and who answers him in concrete form by recompacting the scattered and divided bodies which Donne has evoked. Here God is not



so much the anatomist, but the preserver of the body from the gigantic dissection which has been performed. Like a good anatomist, though, God knows where all the pieces can be found, and more important, He knows how to put them together once more. In a lively discussion of this passage, Carey (p. 220-221) concentrates on the abilities of God, as Donne presents Him, which are displayed in His bringing together once more all the various parts.

In the context of the present discussion, however, it is worth noting how Donne has scattered the body not simply across the world, but across a world which has itself been transformed into an enormous (dissected) body. Thus the earth has buried the scattered body within its own wrinkles, furrows, and bowels. The sea is endowed with ventricles. The body of the world has life too - corrosives "eat away" at the soon to be resurrected corpses, consumptions breathe and exhale the limbs of the dead. Process, in other words, dominates this sequence of images.

But, more interesting perhaps is what happens after God has performed, in Carey's words, His "conjuring trick". Having described how God "whispers...hisses...beckens for the bodies of his Saints" Donne continues:

A Dropsie hath extended me to an enormous corpulency,  
and unwieldinesse; a Consumption hath attenuated me to a  
feeble macilency and leanness, and God raises me a body,  
such as it should have been...I shall have mine old eies,  
and eares, and tongue, and knees, and receive such glory  
in my body my selfe, as that, in that body, so  
glorified by God, I also shall glorify him.

(Sermons VIII. p. 98)

From a consideration of the resurrection as it will affect everyone else, Donne, characteristically, has turned to his own body. Just as

in "A Valediction: of my Name in the Window", or "The Dampe", his own body has become the focus of interest. Not only that, but his own body has been endowed with the ability to swell and diminish, and at the same time it has been divided into constituent parts - eyes, ears, tongue, knees. Once dissected, God can gather the pieces together so that the resurrected whole can once more be made to signify - though this time what is signified is Donne's glory.<sup>46</sup>

Once more we are faced with Donne's determined registering of his own presence in the dissections which take place. He is still, however, the subject of dissection rather than the dissector himself. We have seen how he can imagine God as a dissector, and how from that image he can move to a concept of God performing the reverse operation - bringing together the parts after the anatomist, or Death, has divided them. There still remains, though, the image of Donne as dissector. The anatomist seems to have been a type, for Donne, of the determined investigator. Even when what is revealed through dissection is charged with doubt, and uncertainty, the anatomist still remains as a professional searcher after hidden knowledge. So, trying to define the notion of 'spiritual joy', in a sermon delivered at St. Paul's in 1622, Donne tries to evoke the impossibility of such joy ever revealing itself to rational scrutiny: "...no naturall philosopher can call it by a name, no anatomist assigns the place where it lyes" (Sermons, IV. p. 159). Even the scrupulous attention to detail which is displayed in the anatomy theatre will defeat the enquirer at this point. In a later sermon, we find Donne turning to the anatomist as the archetype of the professional as opposed to the artisan. If <sup>he</sup> it said of a rich man that he knows the relationship between body and soul, Donne argues, then:



You may as well call him an anatomist, that knowes  
how to paire a naile, or cut a corne, or him a  
surgeon that knowes how to cut and curl haire...

(Sermons, p. IX. p. 385)

The joke, here, of course, is that surgeons and anatomists were originally associated with just such trades as those which Donne scornfully dismisses.<sup>47</sup> But the scorn is that of the practitioner for the empiric or the quack.

If Donne was attracted towards the anatomist's task, he could also, in his imagination, perform his own dissections. Such an imaginative dissection took place before the King at Whitehall in April 1620/1, when Donne preached on a text from Proverbs (25. 16): "Hast thou found honey? Eat so much as is sufficient for thee". How can we know how much honey, or worldly honour, we can eat, Donne asks? The question can be answered by diving into the body, and embarking upon an anatomical journey, in the course of which the various ventricles of the body can be surveyed, and their capacity assessed:

We know the receipt, the capacity of the Ventricle,  
the stomach of man, how much it can hold; and we know  
the receipt of all the receptacles of blood, how much  
blood the body can have; so we do of all the other  
conduits and cisterns of the body; but this infinite  
Hive of honey, this insatiable whirlpool of the covet-  
ous mind, no anatomy, no dissection, hath discovered  
to us.

(Sermons, III. p. 235)

The mind, then, in its infinite capacities, will defeat the anatomist. The body, however, is susceptible to analysis, observation, and above all measurement. With the stress, in this passage, on measurement, it might be possible to argue that Donne knew of Harvey's work on the circulation of the blood - work that involved Harvey in calculating the capacity of the heart, and the rate of flow of blood from the heart's



chambers into the arteries. Such a possibility becomes increasingly unlikely, though, when it is remembered that Harvey's work on circulation was not published until 1628, and that in his lectures of 1616 he did not develop, or even introduce, his ideas on circulation.<sup>48</sup>

What has caught Donne's imagination is the anatomists' attempts at transforming the body into an organism whose volume can be calculated. But as the image is continued, the sense of the body as having a finite capacity for liquid is abandoned. Instead, the body is expanded (just as Donne had expanded his own body in the images surrounding the resurrection). At the same time the impersonal tone of the writing, suggested by the authoritative <sup>it</sup> "We know..." (the "We" being, presumably Donne and the anatomists), is transformed into something much more personal, and much more immediate:

When I looke into the larders and cellars, and vaults,  
into the vessells of our body for drink, for blood,  
for urine, they are pottles and gallons; when I look  
into the furnaces of our spirits, the ventricles of  
the heart and of the braine, they are not thimbles...

(Sermons, III. p. 236)

Now it is Donne alone, without the aid of any anatomist, who is performing the observation. At the same time, the body has been enlarged (or Donne shrunk), and metamorphosed into an architectural construction through which the observer can clamber, drawing attention to the enormous containers of fluid which can be found (according to the O.E.D. a "pottle" is the approximate equivalent of half a gallon). So, having begun by registering the anatomists' attempts at measuring the body, Donne has abandoned the anatomists, and at the same time transformed their measurements to give us an image of an inflated, almost Gargantuan, body. In fact, Rabelais' images of the body are apposite at this point, since he too saw the body as vastly expandable.<sup>49</sup> Donne's transform-

ation of the body into an architectural construction has, as we have seen, its counterpart in anatomical texts. But we have also met this transformed body in The Faerie Queene. In the 'House of Alma' Guyon and Arthur were shown a "vault" in which is found "a mighty furnace, burning whot". In discovering a "furnace" within the body, both Donne and Spenser are following Galen who, in Of the Natural Faculties, described the stomach as a cauldron.<sup>50</sup> What is rather less Galenic, however, is the anatomical journey which Donne embarks upon. It is not dissimilar to the tour of the body made by Arthur and Guyon, but neither is it dissimilar to that resumé of a similar tour which is found in Crooke's Microcosmographia. Where Donne has looked into "larders and cellars", Crooke "surveyed" "cooke-rooms and sculleries". Of interest to both the anatomist and the preacher, at this point, is the body as a place of activity. It is activity, moreover, of an anti-aristocratic kind. The body may well be a "stately mansion", but it has its below-stairs life which commands as much attention as anything which takes place in the front-parlour.

For Donne, the anatomists' investigations were undertakings in which he was keen to share. It is not, then, simply the case that he liked to appropriate information about the body, but rather he tries to conduct, in his imagination, his own investigation. In the course of that investigation he expands the body as if its grotesque size will accommodate his own investigative personality. We find these images of expansion elsewhere in Donne's writing.<sup>51</sup> Finally, though, it is those images of self-dissection which are perhaps the most striking. We have seen Donne assume the imaginative role of corpse in the anatomy theatre, and we have seen him occupying the other possible central role - that of an anatomist. But there remains the possibility



that he could combine both roles and become the anatomist who dissects his own corpse.

The corpse which performs its own dissection might be a function of what Carey has termed the impulse towards vivisection. Vivisection, though, is not an undertaking which was unique to Donne's imagination. Anatomists in the sixteenth century were accused of performing human vivisections.<sup>52</sup> Vivisections on animal material certainly did take place, as they had done since the time of Galen and earlier. A vivisection table, with straps for retaining the animal, is one of the features of Vesalius' engravings, and was copied into later anatomical texts. Harvey performed vivisections upon dogs in the course of his explorations into circulation.<sup>53</sup> There was, of course, the possibility that the corpse which the anatomist divided was not quite dead. This horrific event can, perhaps, be connected to the judicial torture which the body was forced to undergo in the spectacle of execution - a spectacle which Carey notes when he discusses the "makeshift vivisection" which formed part of the ritual of hanging, and disembowelling, to which Catholics were subjected during the later parts of Elizabeth's reign (Carey, p. 16-18). What is important in these scenes of execution is that they are witnessed. They had to be seen, not so that they could be believed, but so that the watchers would understand the full rigour of the law. As Foucault (describing 18th century public executions) observes: "An execution that was known to be taking place, but which did so in secret, would scarcely have had any meaning."<sup>54</sup>

The corpse which comes alive upon the dissection table is an image which is perhaps rather different in what it tells us. Rather than being an encoding of the law's rigour, it may suggest the opposite - the inefficiency or even unfairness of the law. The anatomists who



witness the corpse's resurrection are themselves transformed in such an event. From being extensions of the law's apparatus they metamorphose into physicians, anxious to preserve what, a moment earlier, they had been preparing to divide. An example of this type of transformation is recorded later in the seventeenth century when a woman named Anne Green was accused of murdering her still-born illegitimate baby. Sentenced to be executed, she was hanged, and after half an hour cut down, and taken to the College of Physicians to be anatomized. In the anatomy theatre were waiting:

...all the learned Doctors and Chyrurgeons met to anatomize her; but taking her out of the coffin, and laying her on a Table, she began to stir; whereupon Dr. Petty & others, caused a warm bed to be prepared for her; and after 14 hours she came to herself...

This Lazarus-like story reveals not only the humanity and skill of the anatomist, but it is also designed to illustrate God's preservation of the woman from an unjust fate. It is, as the author of this story which was published in 1651 makes clear: "a...full and perfect Relation of the great handiwork of God".<sup>55</sup>

But there is another aspect to this vivisection element which brings us, directly, back to Donne. If vivisection was not (willingly) performed by the anatomists, vivisection certainly features as part of their illustrations. Vesalius's famous engravings of the progressive dissection of the musculature of the body are most certainly vivisection in that the corpses which are illustrated are shown to be still endowed with life. Looking at the sixth, and seventh plates from Book II of De Humani Corporis Fabrica (Figs. 8 - 9), we see that the cadavers are self-supporting within a land-scape which, if the plates are placed in a contiguous sequence, has been argued as

representing the region to the south-west of Padua.<sup>56</sup> The important feature, though, is the corpse's lively involvement in the proceedings. As Saunders and O'Malley observe, these images "which have been employed almost continuously for the past 400 years" illustrate:

the attempt to represent the dissected body in dynamic fashion with greater emphasis on the living than on the dead...which serves to emphasize the fact that in the sixteenth century there was no separation between morphology and function.

57

A great number of the anatomical images in Donne's poetry exhibit a similar refusal to separate morphology and function. In fact, it is the ability of Donne to present himself as dead and not-dead which allows him to remain such an active figure within the scope of his images of anatomy.

To the modern eye, what is perhaps most curious (or grotesque) is the Vesalian corpse's willingness to assist in the anatomical demonstration which the reader, or onlooker, is witnessing. Fig. 9 for example, shows the dissection at quite an advanced stage, with the abdominal muscles removed, and the right scapula (shoulder-blade) held back by a ~~c~~ord attached to the rope from which the complete cadaver is suspended. But even at this stage, the body still has life within itself. Its right arm is self-supporting, and has been conveniently turned so as to allow the arrangement of the lower muscles to be seen.

If we turn back to Donne's writing, we find a similar willingness (even a desire) to assist in the process of his own dissection. In "The Legacie", for example, Donne explores the idea of being dead and alive, at one and the same time: "Though I be dead...I should be / Mine owne executor and Legacie" (Poems, p. 20). Investigating his own death, which has been caused by a part of himself (i.e. his









mistress), he begins a fruitless self-anatomy. The object of the anatomy is to uncover the heart, so that it can be sent to the woman. Rummaging through his own body, though, he finds no heart: "...I alas could there find none", and he continues:

When I had ripp'd me, 'and search'd where hearts did lye;  
It kill'd mee againe, that I who still was true,  
In life, in my last Will should cozen you.

(Poems, p. 20)

In conclusion, what is found instead of his own heart is the woman's heart. What is perhaps striking within the overall conceit of the poem, though, is the knowingness with which Donne performs his self-dissection. The violence of "When I had ripp'd me" (perhaps echoing Du Bartas's "Shall I rip the stomach's hollowness?") is set against a calmer "search" which, the tense suggests, has been done before - he knows where "hearts did lie".

This image is perhaps, even more forceful than the visual image of the Vesalian corpses, since they, at least, don't rip open their own bodies, but merely display themselves willingly to the onlooker's gaze. For Donne, however, if he is going to be anatomized, then he'd rather he performed the dissection than anyone else. So, in the meditations which form his Devotions upon Emergent Occasions (1624), we find the sick Donne contemplating the possibility of performing his own anatomy. The ninth meditation ("Medicamina Scribunt") has the physicians retiring to consult together. But Donne has not been the passive object of their examination. On the contrary, his has been the most active role of all.

They have seene me, and heard mee, arraigned me in  
these fetters, and receiv'd the evidence; I have cut  
up mine owne Anatomy, dissected myselfe, and they  
are gon to read upon me.

The self-examination, in its real nature, has of course been a spiritual one. Within the sequence of images, though, what is presented is a summary of the medico-legal proceedings whose end result would be the type of anatomy from which Ann Green was so miraculously preserved a quarter of a century later. What is also insisted upon, here, is the active participation of Donne in the business of dissection. The physicians are shuffled off-stage, into a Galenic huddle, reading upon Donne's body as though he were a text, as is made clear a little later where, once more, the image of self-anatomy is insisted upon:

They who have received my Anatomy of my selfe,  
consult, and end their consultation in prescribing,  
 and in prescribing Physick...

(Devotions, p. 47)

Donne's activity is in stark contrast to the faceless physicians who await the outcome of his examination of his own body.

We might expect, in a work such as the Devotions, considerable emphasis to be placed on the body. Apart from the fact that it is written out of sickness, it is also informed by the overall conceit of sin as sickness. It is perhaps a little more difficult to accommodate the image of self-dissection which surfaces in these passages, and which is reflected in a poem such as "The Legacie". We have seen, however, the ways in which the anatomists, in their prefaces, sought to justify their investigations in terms of spiritual self-knowledge, so that the conjunction of anatomy and spiritual self-contemplation, that we find in the Devotions should not be too surprising. That said, though, the appropriation by Donne of both the possible roles contained within the anatomy theatre is still un-



settling. It is tied up with, on the one hand, the vivisective element which we have already, in part, witnessed in some of the anatomical images which are reproduced in such numbers, and on the other hand it is connected to the spiritual inward search which critics, following the publication of Martz's Poetry of Meditation, have found such an attractive method of explicating Donne's writing.<sup>60</sup>

On the question of self-anatomization, we can find the exact counter-part to Donne's images in the work of contemporary illustrators. Examples are reproduced here (Figs. 10 - 13). Fig.10 shows a copperplate engraving by Pietro Berrettini, made c. 1620, but not published until 1741. The image displays a development upon the Vesalian convention of the "living anatomy". The figure, who strikes a Vesalian pose, even if the execution of the figure is sub-Vesalian, is not only alive, but is actively assisting in his own demonstration of anatomy. With his left hand, he has peeled back the sternum to reveal what is below, while his dissected right arm is thrown back. If we look on to the subsequent two illustrations, we can see a repetition of this idea.

These two illustrations are taken from Spigelius's De Humani Corporis Fabrica (Venice, 1627). Copperplate engravings, they were originally the work of the artist Odoardo Fialletti (1573-1638) - the author of a manual for drawing the human body. These plates, and the sequence from which they are taken, were designed to form part of a text-book on anatomy which Guilio Casserio, professor of anatomy at Padua from 1604, was engaged upon when he died in 1616.<sup>61</sup> Though the images from Spigelius and that by Berrettini date from the early seventeenth century, it is not the case that such self-dissective images are a relatively late development in anatomic illustration.









Fig. 13, for example, shows a similar convention at work in an illustration from a pre-Vesalian text. This wood-cut, taken from Berengarius's Isagoge Breves (1535 ed.), though crude in comparison to the post-Vesalian illustrations, clearly shows the same self-dissective impulse at work.

The relevance of these illustrations to this discussion of Donne will, I hope, be readily apparent. Donne's "I have cut up mine own anatomy, dissected myselfe, and they are gone to read upon me" could not be more clearly illustrated. In these images the figures do indeed perform their own anatomies, compliantly lifting skin and tissue to reveal the structures which lie underneath. As such these images act as a pictorial counter-part to the self-examination Donne conducts in "The Legacie" or the plea for anatomization to be found in "Loves Exchange". Donne's anatomic images begin to appear within a context of anatomic illustration which might qualify Jean Hagstrum's observation that "...the metaphysical poet prefers being witty to being visual".<sup>62</sup> There are, perhaps, no more witty conceits in Donne's writing than his images of self-dissection and reduction. The implications of such comparisons between the visual and the written, in Donne's case, are considerable. Donne's anatomical tendencies, which have been cause for comment amongst many of his modern critics, begin to appear, if not as conventional, then at least as forming part of a tradition of representations of the body which, by the mid-seventeenth century, and the more specialized investigation subsequent to Harvey, was already beginning to disappear.

How such representations are linked to the theme of spiritual self-understanding can also be uncovered, once it is remembered that the divorce between the physical and the spiritual worlds was by no



... ..

means absolute in the period, or amongst the writers we have been examining. "Every particular man is himselfe Templum Spiritus Sancti, a Temple of the Holy Ghost" Donne writes in a sermon delivered early in 1619 (Sermons, II. p. 217), and he repeats this claim some seven years later, at a sermon delivered at the funeral of Sir William Cokayne, in December 1626:

...Propose this body to thy consideration in the highest exultation thereof; as it is the Temple of the Holy Ghost: Nay, not in a metaphor, or comparison of a Temple, or any other similitudinary thing, but as it was really and truly the very body of God, in the person of Christ...

(Sermons, VII. p. 272)

Asserting the literal truth of the body as a tabernacle obviously endows the anatomist's incursion into that structure with considerable ramifications. "God's first care of man" Donne writes in 1620 "was his body, he made that first; and his last care is for the body too, at the Resurrection" (Sermons, III. p. 83). The anatomist who charts the human frame, as Fletcher and others observed, is engaged upon a spiritual as well as physical task. "Consider the making up of a naturall man, and you will see that he is a convenient type of a spiritual man too" Donne continues in the same sermon (Sermons, III. p. 85). At times, too, there are advantages, in spiritual matters, which the body possesses over and above those possessed by the soul. If the soul could have more of the body about it, more of the ability to register the external world, it might be safer:

My God, My God, why is not my Soule, as sensible as my body? Why hath not my Soule these apprehensions, these presages, these changes, those antidates, those jealousies, those suspicions of a Sinne, as well as my body of a sickness? Why is there not always a pulse in my Soule, to beat at the approach of a tentation to Sinne?

(Devotions, p. 8)

The biblical topos of 'sin as sickness', with the attendant image of 'Christus Medicus' informs these sentiments.<sup>63</sup> But the passage is also an example of the way in which Donne habitually casts spiritual matters into a rhetorical frame-work which is overtly physical.

In this, he could only have been encouraged by those writers whom, if Martz is correct, he studied with care, and whose patterns of meditation he developed and put to his own artistic use. Martz cites a passage from St. Bernard's Meditations:

Therefore I will return from outward things to inward,  
and from the inward I will ascend to the superior....

"Such exhortations" says Martz, "resound throughout the popular treatises of our period, whether Puritan, Catholic, or Anglican".<sup>64</sup> We have already seen exhortations of this type, though in a slightly different context, in the work of those Divines (such as Woolton, Hill, Strode, and Weemes) who turned to anatomy as a pattern for the type of undertaking upon which they were engaged. With reference to Donne, we can see how inward spiritual meditation, the prelude to the ascent to higher forms of contemplation, also bore a marked physical tendency. Inner contemplation, then, as the preliminary step towards spiritual ascent gives substance to Joan Webber's observation that Donne, in his prose, "tends to make himself the centre of things, the object to contemplation".<sup>65</sup> To cite one more example from amongst the anatomists, the title-page of Spigelius's De Humani Corporis Fabrica (Fig. 14) instructs the beholder in the spiritual dimension of anatomy. On the title-page a seated figure ("Anatomia") is shown, flanked by the figures of "Diligentia", holding a surgical instrument, and "Ingenium" holding a sun-motif. "Anatomia" gazes into a looking-



glass which she is holding, and which is angled so that she sees a skull, which she also holds, and the reflected figure of "Ingenium". The design thus portrays the knowledge (represented by the sun-motif) which can be gained of ourselves, and the understanding of human mortality which can be arrived at, when we gaze into the looking-glass of anatomy.<sup>66</sup>

"Seeke wee then ourselves in our selves" Donne urges in the verse letter "To Mr. Rowland Woodward" (Poems, p. 186) and he seems to be echoing Thirsil's admonition in The Purple Island. This turning inwards, a process by which the temporal qualities of the body are made to delineate the attributes of the soul, is given its most complete expression in that much-discussed poem - "The Extasie".<sup>67</sup> Within the context of the present study, it may perhaps be enough to do no more than draw attention to the fact that it is with an image of the body that the poem closes. That image, though, is designed not to reflect the potential worth of the body but, paradoxically, to re-emphasise the position of the soul within the "dialogue of one" which is the poem's argument. "To'our bodies turne wee then" Donne writes:

Loves mysteries in soules doe grow,  
But yet the body is his booke.

(Poems, p. 53)

Within the merging of christian platonism, riddle, and sexual persuasion which go to make up the poem, the body has a central part to play. Though the relationship of the body to a sense of selfhood is itself paradoxical ("They're ours, though they're not wee"), it cannot simply be cast aside.<sup>68</sup> Instead, the lovers' combined bodies are to be celebrated as "allay" not ignored as "dross". His most extended discussion of the body, however, and the one with which this



chapter will close, is to be found in what may be acknowledged as his most confusing poems - the two Anniversary poems of 1611-1612.

### Anatomizing the World: The Anniversaries

The circumstances out of which Donne's Anniversary poems were produced, and the critical debate which has centred upon them ever since Ben Jonson's remarks to Drummond of Hawthornden were recorded, are well known. In essence, that critical debate has been asking and re-asking the same question: in which genre should we locate the Anniversaries?. If they do form part of a recognizable literary genre, then we might know what questions not to ask of the poems. In particular, we might know just what weight to attach to the figure of Elizabeth Drury, who is hyperbolically preserved in the occasion which the poems commemorate. But equally, the debate which Martz initiated with the publication of his The Poetry of Meditation is also a debate concerning genre.

Martz's endeavour, an attempt to place the Anniversaries within the context delineated by meditative exercises, has been challenged on a number of fronts. Williamson argues that Donne disliked the Jesuits, and thus he finds it unlikely that Donne would have modelled his discourse upon one associated with a habit of thought which, it is presumed, could have had little attraction for him. Williamson suggests, instead, that the "Nosce Te Ipsum" doctrine is of particular importance to the poems. Martz has also been challenged by Ralph Maud and Harold Love. Maud argues that the poems are not to be understood as meditative exercises at all, but rather, they constitute "an anatomy, a demonstration of parts, in a special witty sense". Love agrees that Martz is wrong, and suggests that in the poems we can see



Donne as an anatomist whose purpose is "argument, and the topic that he sets out to argue is the corruptness of the world".<sup>69</sup>

In introducing the idea of Donne confronting corruption, another possible genre begins to emerge, and one that is connected with satire. T. J. Arthur, in a convincing study, connects the Anniversaries with a satiric mode which he believes informs the "anatomy" genre as a whole. Barbara Lewalski, on the other hand, argues that it is not satire but a "symbolic mode of praise" which constitutes the context of the poems. Others have concentrated on the figure of Elizabeth Drury herself, thus Marjorie Nicolson discovers Elizabeth Drury to be only one of a number of possible 'recipients' of the poetry - others include Astrea, the Virgin Mary, and Elizabeth I. O. B. Hardison Jr. and Richard E. Hughes, similarly, focus attention on Elizabeth Drury or her personae.<sup>70</sup> In particular, the Anniversaries have proved a fruitful battle-ground for those who would prove (or disprove) Donne's knowledge (or ignorance) of old (or new) science.<sup>71</sup>

Within this welter of conflicting opinion Rosalie Colie has questioned genre as a solution to the problems posed by the poems. That the poems might, for instance, draw upon elements of different 'genres' seems quite possible. Beyond that, though, we might keep in mind the idea that genre is itself a construct of the reader, a critical response which helps to gather texts together. But the problem with the variety of responses which the poems have called forth is, as Rosalie Colie points out, that each of these responses may go some way towards helping to define "elements of the poems' argument, imagery, doctrine, or structure" but at the same time, these responses "conspicuously do not mesh with one another".<sup>72</sup>

There is, of course, no reason why, beyond the critics' desire

for some degree of consensus, varying readings of a text should have to mesh in such a way. Structurally, though, this lack of consensus does present problems, since it is difficult to embark upon a "reading" of a text if there is so little agreement as to that text's basic structure. Attempts at uncovering that structure seem either to have relied on a solution akin to that of Martz, where the structure of other texts - contained in the meditative tradition - has been adduced as a model with which to read the Anniversaries, or else they have proposed some means of fixing the addressee of the poems. The problem of who is addressed within the poems ushers Elizabeth Drury back into the centre of the stage, and with her come the difficulties of accommodating the extravagant praise of a dead fourteen year old, combined with the poems' subtitles which place Elizabeth Drury as the "occasion" (not the reason) for the poems' composition.

Colie's solution is to call attention to the poems' "voice" which, she suggests, can be heard as the voice of Donne in the poems' forward progression. It is with this "voice" that I, too, shall be concerned. Rather than term the utterance of the poems a "voice" though, I shall concentrate on a device which I believe is perhaps akin, and this is the role which Donne occupies in the poems' movement. In concentrating on this element we meet, once more, a theme which we have explored throughout this discussion of Donne's writing, and that is the question of anatomy functioning as a means of self-preservation within the text.

In An Anatomie of the World the question of who is speaking, who is addressed, and who (or what) is the subject of the utterance, is confused within the first twenty-five lines of the poem. "The entrie into the worke" seems, at first, to be presenting a voice which has



no specific reader in mind.<sup>73</sup> The world, which the title informs us, is to be anatomized is firmly conceived of as the subject of the verses. Evoked in the third person ("...it bled...it joy'd, it mournd" ll. 12. 20) the world is, however, soon transformed into the recipient of the poem, the implied reader. This transformation begins at line twenty-three ("So thou, sicke world, mistak'st thy selfe..."), and is confirmed through the piling-up of second-person structures ("Thou mightst... thy sense...thou art...defin'd thee..celebrate thy name" ll. 26, 28, 30, 37, 38). This transformation of the world immediately poses a problem since what we are reading is no longer, in the strictest sense, an anatomy, but rather a vivisection in which the material of the vivisection (the world) has enough sense to also receive the results of the operation. We might, here, re-call Donne's frequent endeavour to hold down both the possible roles in an anatomy theatre - the corpse with enough life to perform its own dissection.

The logical difficulties which are introduced are explored to the full at the point where a new element is introduced - the voice of the poet:

I (since no man can make thee live) will trie  
What we may gaine by thy Anatomy.

(ll. 59-60)

Roles are now being confirmed. The subject of the anatomy, and the recipient of the information which is uncovered is still to be the world, though the world is in a fluid state, hovering between sickness and death ("Sicke World, yea, dead, yea putrified" l. 56). The dissector, or anatomist, is to be Donne himself ("I...will try"). But who, or what is the "we"? One possibility is that the "we" signifies Donne again, characteristically transforming himself from an individ-



ualized "I" into a universal "we". Joan Webber's comment, applied to Donne's prose, might here seem applicable to his poetry: "The self-centredness of the prose is qualified by the fact that "I" and "We" are so inter-changeable, by the fact that the "I" symbolizes all men".<sup>74</sup> A rather more radical possibility is that the "we" evokes a new individual, or set of individuals altogether. They might be characterized as the readers of the poem who are invited to take up a position within the poem which the overall conceit of the text demands: the audience who watch the anatomy being performed. If we read the poem thus, then we are forced to conclude that the structure of the poem's form of address involves not one, but two possible recipients. The first is the world, who is also the subject of the dissection, but the second is us, as readers, who watch the dissection being performed, but who must also, because of our presence in the world, be involved in an immediate fashion with the dissection. So, "we" as readers, learn from Donne who is dissecting, but like the world, "we" too, within the conceit of the poem are caught up in the operation.

If this seems confusing, or even too far-fetched, then the reply must be that only a few lines after the "I...thee...we...thy" conundrum precisely the problem I have outlined is repeated. Elizabeth Drury's death ("Her death") teaches us as readers/onlookers ("hath taught us") that the world, here the recipient alongside the reader ("that thou art"), is "corrupt and moral" (ll. 61-62). Teasingly, Donne then draws attention to the confusion as to who is being referred to, by imagining a possible reader-response which objects to being caught up in the poem in this way, and seeks a logical escape from the argument:

Let no man say, the world it selfe being dead,  
 'Tis labour lost to have discovered  
 The worlds infirmities, since there is none  
 Alive to study this dissectione;

(ll. 64-66)

To the man who would say that the dissection has no audience, Donne provides only a further division of roles. There are, in fact, two worlds under consideration in the poem. First there is the world which is stretched out on the dissection table ("the carcassee of the old world" l. 75) which also functions at the opening of the anatomy lesson as the audience for the anatomy. But this world metamorphoses into a new world, which includes the objecting reader, and whose function is to learn from the anatomy lesson: "This new world may be safer, being told / The dangers and diseases of the old" (ll. 87-8).

This concentration on roles in the poem suggests that the difficulties which critics have discovered in the poem run deeper, perhaps, than problems of genre or decorum, both of which were issues which Ben Jonson, long ago, uncovered. The difficulties are syntactic and linguistic in the first instance. Syntactically, the poem blurs the distinction between subject and reader. The one might conceivably merge into the other, where the subject is the world who is also the audience for the poem.

Admitting the difficulties associated with fixing the individual elements in the poem, the structural relationships between those elements remain relatively fixed. If we concentrate on the operation which is being performed, an analysis of the world conducted through the medium of anatomy, then we find that all the relationships present in the anatomy theatre are present in the poem. An anatomy demands that there be a corpse, an audience to learn or study the anatomy, and a dissector. These three elements are brought together to produce an



anatomization. We have seen though how Donne, elsewhere in his writing, can blur<sup>x</sup> the distinction between these elements: adopting, for example the pose of the corpse which performs its own dissection. In An Anatomie of the World the audience merges into the subject of the dissection, and the dissector (the "I" of the poem) also merges into the dissection.

Where we can see this happening most clearly is in the five refrains which occur at uneven intervals, and which remind us of the occasion of the poem ("Shee, shee is dead; shee's dead..."). These refrains are both the keystone of Martz's argument (and the keystone for those who have followed Martz), and the rock upon which Martz believes that the poem founders. For at one and the same time they enable Martz to embark upon his meditative division of the poem, revealing a "threefold division of meditation, within a larger fivefold structure", whilst they also provide evidence for the "failure" of the poem as a whole when compared to Of the Progresse of the Soul. That failure is itself a function of the way in which Martz reads the refrains as introducing a "heavy pause" and "flat, prosy Morals" into the verse.<sup>75</sup>

There is no doubt that the verse does slow down as we enter each refrain. Punctuation (a point which is usually so contentious in Donne's writing, but which here provides little textual difficulty) combined with the repetition of the "Shee" serve to at least modify the onward movement of the verses.<sup>76</sup> At the same time, the refrains are bound into the fabric of the verses. That preparation is performed through Donne's introduction of the stress on "She/Shee" some eight to ten lines before we arrive at the refrain. The "Shee, shee, is dead: shee's dead..." structure thus emerges from ground which has already



been prepared.

The refrains do not, however, simply introduce Elizabeth Drury before our eyes. At each refrain, Donne reminds us of the death of Elizabeth Drury ("shee's dead"), addresses the reader ("when thou knowst this"), tells the reader what he or she has learned (the world is a "cripple"/"monster"/"Ghost"/"Cinder"), and reminds us of the operation to which we are witnesses ("our Anatomie"). Our "Anatomie" is what is being performed, but the question arises, precisely whose anatomy is this? The answer must be that the "our" of each refrain, and which qualifies each reminder of anatomization, refers both to the reader who is included in the world, and is an indication of Donne's determination to perform the active part of anatomist. "Our Anatomie" can be read, therefore, on the reader's part as "our (own) Anatomie", but the voice which is heard is Donne's, drawing attention to his own act of anatomization. Authoritatively, he is addressing the audience in the anatomy theatre using the possessive genitive adjective expressive of the subject. That subject, we might also note, is itself grammatically fluid. Our anatomy is the anatomy performed by Donne; it is also the anatomy of ourselves from which Donne is not excluded. Disturbingly, but characteristically, the anatomist who dissects the world might also have to include himself in that dissection.

A concentration on these structures within the poem reveals, I would suggest, an overall structure which is dynamic rather than static. Equally, there can be very few poems in which so much depends on the way in which we assign performative roles to pronouns. Criticism which concentrates on the part played by Elizabeth Drury in the poem has been forced to recognize this. Elizabeth can only

appear in the poem through the ghostly medium of "she", a fact which allows different commentators to place a different weight of emphasis on who is referred to in that "Shee/shee". But it is probably not an over-statement to say that the meaning of the poem, for each reader, is bound up with the interpretation of the numerous pronouns. It may be worth noting, in this context, how the poem moves through many possible pronouns, and pronoun related structures. It begins, as we have noted with a concentration on "it", but soon moves into "thee/thou/thy", introduces, confusingly, an "I"/"wee" emphasis at lines 59-60, and in each refrain moves between "shee", "thou", and "our". As the poem moves towards its conclusion, the voice of the poet becomes ever more insistent, and in the final lines all attention is concentrated on Donne, or the voice of Donne, the first person singular - "Me"/"Mee"/"I". 77

In saying that the structure of the poem is dynamic, I have in mind the progressive structure of a dissection. In dissection, the physical whole which is the body is progressively separated whilst at the same time the body of information which the dissection reveals is increased. A similar reduction of the world, and increase in information, is revealed in An Anatomie of the World. We have seen how, in each refrain, the world is characterized in a different fashion. The first refrain (ll. 183-5) is, of course, an exception for this is "man" (not the world) which is described as "poore" and "trifling". This exception may, however, be qualified by the reader's understanding of correspondence between the microcosm and the macrocosm, where man and the world stand in direct relation to one another. In the subsequent refrains, though, we move from function (the world is "lame"), to appearance (the world is "ugly"), to disembodiment (the world is a "wan...Ghost"), to consum<sup>m</sup>ation in fire (the world is a "drie...cinder").



That progressive reduction of the world mirrors the progressive increase in the reader's knowledge of the world. After the opening section, the surface of the anatomical material is examined for signs of its outward decay. These signs (man's life is shorter than it once was, his stature is shrunk, etc.) are easily discernable to the careful observer. As we move deeper into the anatomy, so the information which is uncovered becomes more complex, and less easily discernable. The structure of things rather than their appearance becomes the object of the enquiry. The third level of dissection moves into an area in which appearances are actively deceptive, and attention is paid to the significant gap which opens up between what we think we see (the "heavens" seem to be "sphericall"), and what might in reality be the case. Paradoxically, this deeper level of enquiry is looking upwards rather than downwards, but the progressive structure seems still to be in operation. By the time we reach the fifth and final level of dissection, the very act of dissection itself has begun to be called into question, for in looking at the body of the world and what is contained "...man least knowes their trade, and purposes" (l. 398).

Having said that the reader's knowledge of the world increases, a note of qualification has to be introduced. Whilst it is true that more and more information is uncovered as the anatomy progresses, the interpretation of that information becomes progressively more and more uncertain. As we learn more, so our corresponding understanding as to causes becomes more doubtful. It is that awareness of doubt, of course, which makes possible the second of the Anniversary poems, since it is as if rational enquiry has been exhausted, and spiritual enquiry must take over. The anatomization of the world must give



way to fideistic tracing of the soul's path.

As if to prepare us for that abandonment of anatomy, An Anatomie of the World reminds us, in its closing stages, of the limitations of anatomy:

But as in cutting up a man that's dead,  
The body will not last out to have read  
On every part, and therefore men direct  
Their speech to parts, that are of most effect;  
So the worlds carcassee would not last, if I  
Were punctuall in this Anatomy.  
Nor smels it well to hearers...

(11. 435-441)

We are, once more, within the confines of the anatomy theatre. The body has been made to signify, but only through a judicious selection of the significant organs. Much has to be left unsaid, since time and decay will eventually defeat the enquirer.

If the limitations of anatomy are reached in An Anatomy of the World, they are confirmed in Of the Progresse of the Soul. Curiously, anatomical information is very much to the fore in the second of the poems, but that information is introduced to a purely negative end. Knowledge of the structure of the body indicates only the limitations of rational enquiry: "when wilt thou shake of this pedantry?" Donne asks (l. 291), having searched the body and found only confusion (11. 269-280). Indeed, the body, and its limitations, are hindrances to the understanding: eyes are "lattices", ears "labyrinths", through which the soul peeps, and in which it is lost.

In concentrating so entirely on the first of the two poems, I am aware that I may be doing some disservice to the second. The first poem has, though, suffered critically from being read in the light of the second. Perhaps this is inevitable given the bibliographic,

historical, and artistic relationship between the two. Our understanding of the second poem hinges, however, on our understanding of the first. In a very real sense there cannot be a second poem without Donne having explored the limitations of the physical world in the first. The reader who has moved, with Donne, through the world's anatomy is prepared for the spiritual exploration which is to follow.

It goes without saying that all readings of the Anniversary poems must remain problematic. If, in the interpretation of literary texts, there is room to accommodate a variety of responses, then the chambers which these poems occupy are correspondingly large. My own conclusion is that, no matter how complex and confusing the poems appear to be, they are not at variance with Donne's writing as a whole. To single them out for special attention is natural, given the texts' density. At the same time, however, we confront, in An Anatomie of the World in particular, issues, images, roles, and structures which inform all of Donne's writings, be they lyrical poems, essays, meditations, sermons, or anatomizations.

### Conclusion

This discussion of Donne's writing began by noting the difference between his response to the body and that of his contemporary - Phineas Fletcher. But for all the differences that are involved, Donne and Fletcher are brought together in one respect, and that is to do with the difficulty which modern criticism has encountered in coping with what might be termed their shared anatomical impulses. In the case of Fletcher's The Purple Island these difficulties have entailed an abandonment of the task, and his poetry has been consigned to the margins of what constitutes literary history. Donne, of course,



cannot be so dismissed. His tendency towards the anatomic, however, has presented problems of interpretation because the issue of "taste" is raised. To the twentieth century, it appears that "taste" is as much a concern, still, as decorum was to the Renaissance writer. When Eliot wrote of Webster that he was "much possessed by death / And saw the skull beneath the skin", and of Donne that he "knew the anguish of the marrow / The ague of the skeleton", he was registering the difference in sensibility which these seventeenth century writers seemed to possess in relation to the prevailing sensibility which he believed was identifiable in the first two decades of the twentieth century. Webster and Donne thus appear as strange guests at Eliot's table, irrevocably cut off from any period other than their own.<sup>78</sup>

In Donne's case, the question of "taste" may well blind us to the functional role which his desire to "seize and clutch and penetrate" (to quote Eliot once more) is a part of. We cannot say that Donne's images of anatomy do not have the power to shock or disturb a modern sensibility. We cannot know if they possessed a similar power for his contemporaries. We may guess that they did (else why introduce them?), but equally they spring from a context which if it cannot be recaptured, at least its outlines can be traced. That context is one in which the events which took place in the anatomy theatre were invested with a significance which, now, is almost beyond our comprehension. In Donne's writing, the human body appears as both extraordinarily penetrable, and also deeply resilient. Its resilience is confirmed by the fact that, even when it is reduced on the dissection table, it still possesses the power to signify. In fact it signifies in its most charged sense when it does suffer such



reduction.

Given that ability of the seventeenth century body to signify, it should come as no surprise to learn that between the dissecting table, and the dissector's knife, Donne should have been willing to interpose his own body. In so doing Donne was able to appear within his own verse in a way in which few even of his contemporaries imagined. If this period is one in which the mystery of the body is both confirmed and questioned, then Donne's attitude towards the body is evidence for an awareness of a further duality. Donne's body, in his writing, is both reduced and expanded. Its full significance, and its power, is revealed only when it is at its most vulnerable. In its vulnerability, too, its potential for theatricality is revealed. Fletcher's conception of the body is here quite different. Emerging through the mediating voice of pastoral persona, the body is already held firmly within the public domain, its geography is mapped with a corresponding ease by a voice (that of Thirsil) whose main task is to render strange that which we might have thought we knew already. But there is very little which is theatrical in this presentation of the body, and in this Donne and Fletcher, close historical contemporaries as they are, diverge. Paradoxically, in that divergence, it is Fletcher, the conservative looking back towards Spenser, who appears as the more modern of the two. In Fletcher's poem we saw that the body was subject to two discourses held in tension with one another. The first was one which springs from the pastoral past. The second, though, is one which looks towards the ideal of an exact science of the body upon which the contemporaries of Harvey believed they were embarked.

In making this point concerning Donne's awareness of the body's

potential as the site of theatrical performance, I have in mind the theatricality or spectacle which informs the Renaissance anatomy theatre. At the same time, however, for Donne this sense of the theatrical is bound up with the act of presenting and preserving the self in his writing. Hitherto, theatricality has been seen as mainly the preserve of the play-house, the public and private theatres of Elizabethan and Jacobean London, and the court. But the anatomy theatre reminds us that theatricality informs the culture of the period at every level. If this, in essence, is the argument of Stephen Greenblatt's work, then we must also recall that, for Donne, reduction and display go hand in hand. "Strip off the layers of theatrical delusion and you reach nothing at all" Greenblatt observes of Sir Thomas More.<sup>79</sup> In the anatomy theatre this reduction to nothing is the kernel of the performance. Yet, in the very act of reduction, a progressive construction of the body is produced in the mind of the spectator. To investigate this construction further we must return to the anatomy theatre in the second section of this study.

## Notes

<sup>1</sup> On "doubt" in Donne's writing, see: Mario Praz, The Flaming Heart, (New York: Doubleday & Co., Inc., 1958) p. 194. On "doubt" in general in the Renaissance, see: Margaret L. Willey, The Subtle Knot: Creative Scepticism in Seventeenth Century England, (London: George Allen & Unwin, 1952); R. H. Popkin, The History of Scepticism from Erasmus to Descartes, (Assen, Rev. ed., New York: The Humanities Press, 1964); D. C. Allen, Doubt's Boundless Sea: Scepticism and Faith in the Renaissance (Baltimore: Johns Hopkins U. P., 1964).

<sup>2</sup> Louis L. Martz, The Poetry of Meditation: A Study in English Religious Literature of the Seventeenth Century, (New Haven and London: Yale U. P., 2nd ed., 1962) pp. 27-32.

<sup>3</sup> References to "Obsequies to the Lord Harrington" and to the "anniversary" poems are to: John Donne, The Epithalamions, Anniversaries, and Epicedes, ed. W. Milgate (Oxford: Clarendon Press, 1978).

<sup>4</sup> On the privacy of the body as well as its public destruction in execution see: Barker, pp. 21-25; Michel Foucault, Discipline and Punish: The Birth of the Prison, trans. Alan Sheridan (Harmondsworth: Penguin Books Ltd., 1979) pp. 32-69.

<sup>5</sup> John Carey, John Donne Life Mind Art, (London: Faber & Faber, 1981) p. 136, 134.

<sup>6</sup> See Walton's "Elegy on Dr. Donne" which first appeared in the 1635 ed. of Donne's Poems.

<sup>7</sup> See: D. C. Allen, "John Donne's Knowledge of Renaissance Medicine," JEGP 42 (1943) p. 322; Robert Ellrodt, "Scientific Curiosity and Metaphysical Poetry in the Seventeenth Century," MP 61 (1964) p. 197; Frank Kermode, Shakespeare, Spenser, Donne: Renaissance Essays, (London: RKP, 1971) p. 119; D. H. M. Woolam, "Donne, Disease and the Doctors," MH 5 (1961) p. 145.

<sup>8</sup> See: Nicholson, The Breaking of the Circle, passim; Barkan, passim; C. M. Coffin, John Donne and the New Philosophy, (New York: Humanities Press, 1958), passim.



<sup>9</sup> Winfried Schleiner, The Imagery of John Donne's Sermons, (Providence, R. I.: Brown U. P., 1970) pp. 83-4.

<sup>10</sup> Barkan, p. 54.

<sup>11</sup> Barkan, p. 48.

<sup>12</sup> See: Keynes, Life of Harvey, pp. 121-2; F. N. L. Poynter, "John Donne and William Harvey," JHM 15 (1951) 233-46.

<sup>13</sup> Compare Donne to Sir Thomas Browne who, it has been suggested, accepted Harvey's theory because it "appealed to his poetic imagination as well as to his scientific reasoning". See: F. L. Huntley, "Sir Thomas Browne, M. D., William Harvey, and the Metaphor of the Circle," Bulletin of Medical History 25 (1951) p. 236.

<sup>14</sup> Amongst the books in Donne's library were: Paracelsus, Chirurgia Magna (1573); Joannes Messua, De Re Medica trans. Sylvius (1562); Henrie Cuffe, The Differences in the Ages of Mans Life (1607); Goclenius, Physiologia Creptis Ventris et Risus (1607); the Opuscula of Molinus (1610); Joannes Messua, Textus Mesue Doctorum Celeberrum (1540). See Sir Geoffrey Keynes, A Bibliography of Dr John Donne, (Oxford: Clarendon Press, 4th ed., 1973).

<sup>15</sup> See Poynter, p. 234; Carey, p. 136; and Baird D. Whitelock, "The Heredity and Childhood of John Donne," NQ 6 (1959) 257-262, 348-353.

<sup>16</sup> Woolam, p. 147.

<sup>17</sup> Donne's relationship to Paracelsus is discussed in particular in W. A. Murray, "Donne and Paracelsus: An Essay in Interpretation," RES 25 (1949) 115-123.

<sup>18</sup> See the dedicatory preface to the 1628 ed. of De Motu Cordis, and Berengarius, A Description of the Body of Man trans. Jackson (London, 1660) p. 141.

<sup>19</sup> References to Donne's "Songs and Sonnets" are to Grierson's edition of the poems (Oxford: Clarendon Press, 1912) referred to throughout as Poems.

<sup>20</sup> George Gascoigne, "Gascoigne's Anatomie" in A Hundreth Sundrie Flowers Bounde Up In One Small Poesie (London, n. d.) sigs. S4<sup>v</sup>-T. Pinto refers to this edition as the first edition of Gascoigne's Works, suggesting it was published in 1573. See: V. de Sola Pinto, The English Renaissance 1510-1688 (London: The Cresset Press, 1938, rev. ed. 1951) p. 175. A modern text of the poem can be found in: J. W. Cunliffe, (ed.), The Works of George Gascoigne, 2 vols. (Cambridge: C.U.P., 1907-10).

- <sup>21</sup> Geoffrey Hartman, "Wordsworth, Inscriptions, and Romantic Nature Poetry" in Geoffrey Hartman, Beyond Formalism: Literary Essays 1958-1970, (New Haven and London: Yale U. P., 1970) p. 211.
- <sup>22</sup> John Davies of Hereford, Wittes Pilgrimage, sonnet 33 (sig. D2).
- <sup>23</sup> A discussion of the significance of this and other Vesalian engravings can be found in: Diane R. Karp (ed.), Ars Medica: Art, Medicine and the Human Condition (catalogue of an exhibition held at the Philadelphia Museum of Art, September-October 1985) (Philadelphia, U. of Pennsylvania Press, 1985) pp. 159-161. See also Saunders and O'Malley, Illustrations from the Works of Andreas Vesalius pp. 248-252.
- <sup>24</sup> Barker, p. 73. For a further discussion of this painting in the context of "penal anatomy" see Heckscher, pp. 97-106.
- <sup>25</sup> Barker, p. 74.
- <sup>26</sup> Helen Gardner (ed.), John Donne: The Elegies and Songs and Sonnets, (Oxford: Clarendon Press, 1965) p. 223.
- <sup>27</sup> On the operation of the spirits, and Donne's understanding of these processes, see Allen, "Donne's Knowledge of Renaissance Medicine" pp. 335-6.
- <sup>28</sup> Carey, in a suggestive discussion of this poem, terms it "amongst the most visually engaging of Donne's adventures in anatomy" (Carey, p. 145). Visual engagement, I would argue, is inextricably caught up with any such anatomic exploration.
- <sup>29</sup> Cf. Holy Sonnet 8 "At the round earths imagin'd corners" in John Donne, Divine Poems ed. Helen Gardner (Oxford: Clarendon Press, 1952).
- <sup>30</sup> The theme of closed doors and opened windows suggests that the poem could readily lend itself to a Freudian reading, a possibility which is underlined when it is recalled that the poem presents itself as a "murmure" uttered in sleep. See, in particular, Freud's remarks on doors and windows in Sigmund Freud, Introductory Lectures on Psychoanalysis (1916-17) trans. James Strachey. The Pelican Freud Library vol. 1 (Harmondsworth: Penguin Books Ltd., 1973 rpt. 1984) pp. 186, 192.
- <sup>31</sup> Donne's endeavour, in the "Songs and Sonnets" to "treat death as a form of life" has been noted by Carey (p. 201-2). But the significance of the Renaissance anatomy theatre, in which just such a paradox is entertained, releases us from the need to create a psychological model of Donne as a "suicide-fancier" to explain these images.
- <sup>32</sup> On the body's geography see Elegy XVIII "Loves Progresse" or "Hymne to God my God, in my Sicknesse."



<sup>33</sup> This woodcut illustration first appeared in the 1493 edition of de Ketham's Fasciculus Medicinae. The version appearing here, taken from Choulant (p.118) was recut for the 1495 edition published at Venice. A similar impression of a pre-Vesalian Renaissance anatomy lesson is to be found on the title-page of Berengarius, Isagoge Breves (Venice, 1535), an inferior version of which was reproduced on the title-page of Jackson's English translation of Isagoge Breves: Mikrokosmographia or A Description of the Body of Man (London, 1664).

<sup>34</sup> It should be noted that Mimi Cazort argues for quite the opposite interpretation of this image: see Karp, p. 154.

<sup>35</sup> A detail which the 1493 version of the illustration contains.

<sup>36</sup> For a discussion of the title-page of the Fabrica see Saunders and O'Malley, Illustrations from the Works of Andreas Vesalius pp. 41-4; C. E. Kellest, "Two Anatomies" MH 8 (1964) pp. 342-353.

<sup>37</sup> Saunders and O'Malley, Illustrations from the Works of Andreas Vesalius, p. 86.

<sup>38</sup> When the title-page of the Fabrica was re-engraved for the 1555 (2nd edition) numerous alterations which "destroyed the symbolic significance of the figures" (Saunders and O'Malley, p. 44) were made. Those which took place in the general area of the skeleton are marked. Equipped with a scythe in the 1555 version, the skeleton stands as an undoubted Memento Mori. But the casual fashion with which the skeleton is treated in the 1543 version disappears, the figures surrounding the skeleton either having vanished or been obscured. The skeleton simply stands as a reminder of mortality, its other iconological role as commentator on pre-Vesalian practices is lost.

<sup>39</sup> Edgar Wind, Pagan Mysteries in the Renaissance (London: Faber and Faber, 1958, rev. ed. 1968) p. 157. On Donne's response (or lack of response) to Platonism see: George Williamson, "The Conventions of 'The Extasie'" in W. R. Keast (ed.), Seventeenth-Century English Poetry: Modern Essays in Criticism, (New York: OUP, 1962) pp. 132-143.

<sup>40</sup> References to the Essays are to: John Donne, Essays in Divinity ed. Evelyn M. Simpson (Oxford: Clarendon Press, 1952).

<sup>41</sup> Saunders and O'Malley p. 86.

<sup>42</sup> On the date of composition of Donne's Essays, see Simpson's introduction to the Essays pp. ix-x.



<sup>43</sup> God "...in his scriptures...often submits himself to comparisons and similitudes, we may offencelessly (since there is nothing but himselfe, so large as the world) thus compare him to the world." (Essays, p. 62).

<sup>44</sup> References to Donne's sermons are to George R. Potter and Evelyn M. Simpson (eds.), The Sermons of John Donne 10 vols. (Berkeley and Los Angeles, U. California P., 1953-62).

<sup>45</sup> See the anatomical information displayed by Donne in Sermons IV. p. 272; V. p. 55; V. p. 353-4 for example.

<sup>46</sup> When a physical evocation of Donne's own body is urged into the poetry, it almost inevitably produces an equal and opposite tendency towards dissolution and dissection, similar to that process suggested in Sermons VIII. p. 98. See, for example, the Holy Sonnets where the body is "unjoynted" (5), "scattered" (8), "untie(d)" (14), and "Melts" (17).

<sup>47</sup> The allusion may also be to the continuing rivalry between surgeons, physicians, and barbers. On this question see Erler, pp. 166-7.

<sup>48</sup> See Keynes, Life of Harvey p. 93; Gweneth Whitteridge (ed.) The Anatomical Lectures of William Harvey (Edinburgh and London: E. & S. Livingstone Ltd., 1964) Introduction, passim.

<sup>49</sup> So Gargantua's mother, whilst suckling "...pouvoit traire de ses mammelles quatorze cens deux pipes neuf potées de laict pour chacsune foy." (Francois Rabelais, Gargantua (1534) ed. Pierre Michel (Paris: Editions Gallimard, 1965 rept. 1985) p. 103. Earlier in Gargantua the drinking scene describes in chapter five also evokes the rapacious capacity of the body to hold liquid. Interestingly, Urquhart, when he published his translation of Gargantua Bks I and II in 1653 was careful to draw out the moral significance of the body's capacities, thus making exactly the same point as Donne: "The Concavities are like another Hell for their capacity". See: Sir Thomas Urquhart and Peter Le Motteux (trans.), Gargantua and Pantagruel ed. D. B. Wyndham Lewis, 2 vols. (London: J. M. Dent & Sons Ltd., 1949) I. p. 17.

<sup>50</sup> See P. A. Robin, The Old Physiology in English Literature (London: J. M. Dent & Sons Ltd., 1911) pp. 76-7.

<sup>51</sup> See, in particular, the images of expansion to be found in "The Progresse of the Soul", especially the anatomical survey conducted by the mouse inside the elephant, a survey not unlike Crooke's or Guyon's (Poems, p. 311).

<sup>52</sup> Thus Cornelius Agrippa claimed that anatomists "...with the most cruel tormentes dismembered the malefactors that were condemned to dye openly, sometimes alive and breathing". (Agrippa, sig. 2R). I have uncovered no evidence to support this observation.

<sup>53</sup> See Saunders and O'Malley, p. 129; Keynes, Life of Harvey, p. 108.

<sup>54</sup> Foucault, Discipline and Punish, p. 57-8.

<sup>55</sup> This account is reproduced in Hugh MacDonald Sinclair and A. H. T. Robb Smith, A Short History of Anatomical Teaching at Oxford (Oxford: Oxford University Press, 1950) plate 4, p. 12.

<sup>56</sup> Saunders and O'Malley, p. 29. Mimi Cazort, however, suggests that the artist was representing Rome rather than Padua (see Karp, Ars Medica, p. 160).

<sup>57</sup> Saunders and O'Malley, p. 92.

<sup>58</sup> John Donne, Devotions Upon Emergent Occasions (1624) ed. Anthony Raspa (Montreal and London: McGill-Queen's University Press, 1975) p. 45.

<sup>59</sup> "Sin as Sickness" (a term which Scleiner investigates, p. 80) was depicted visually in the work of Robert Fludd, where homo sanus is besieged by plagues released by evil angels. See Fludd's Medicina Catholica (Frankfurt, 1629) Tractate I, sec. 1 and Integrum Morborum Mysterium (Frankfurt, 1631) Tractate II. sec. 1. Illustrations of this idea can be found in Joscelyn Godwin, Robert Fludd: Hermetic Philosopher and Surveyor of Two Worlds (London: Thames and Hudson, 1979) pp. 56 & 59.

<sup>60</sup> On the Devotions in particular see: N. J. C. Andreason, "Donne's Devotions and the Psychology of Assent," MP 62 (1965) 207-216, where the formal patterning of meditation, exhortation, and prayer is held to be based on the Jesuit patterns which Martz traced. This view is challenged in Janel M. Mueller, "The Exigencies of Experience: Dean Donne's Devotions upon Emergent Occasions," JEGP 67 (1968) 1-19. See also: Don N. Smith, "The Artistry of John Donne's Devotions," University of Dayton Review 10 (1973) 3-12; Gerald H. Cox, III, "Donne's Devotions: A Meditative Sequence on Repentance," Harvard Theological Review 66 (1973) 331-351.

<sup>61</sup> Berrettini's figure is reproduced in Choulant p. 236. For a full discussion of the images from Spigelius see Choulant, p. 223-228.

<sup>62</sup> Jean Hagstrum, The Sister Arts: The Tradition of Literary Pictorialism and English Poetry from Dryden to Gray (Chicago and London: University of Chicago Press, 1958) p. 113.



<sup>63</sup> Compare Donne's plea for a spiritual pulse to the image to be found on the title-page of Robert Fludd's Pulsus Seu Nova et Arcana Pulsuum Historia (? Frankfurt, ? 1630) where a hand emerges from a cloud to take the pulse of another hand, a representation of Christ as healer similar to that which concerns Donne.

<sup>64</sup> Martz, Poetry of Meditation, p. 121.

<sup>65</sup> Joan Webber, The Eloquent "I": Style and Self in Seventeenth Century Prose, (Madison: University of Wisconsin Press, 1968) p. 51.

<sup>66</sup> Such spiritual claims, represented on the title-pages of anatomical works, were not uncommon in the period. See, for example, the title-page to Johannes Remmelin, Kleiner Welt Spiegel (Ulm, 1632).

<sup>67</sup> See the bibliography in Patrides's edition of Donne's poetry which lists over twenty items concerned exclusively with "The Extasie", C. A. Patrides (ed.), The Complete English Poems of John Donne (London: J. M. Dent & Sons Ltd., 1985) pp. 531-541. A convincing account of the problems of reading the poem can be found in David Novarr, The Disinterred Muse: Donne's Texts and Contexts (Ithaca and London: Cornell University Press, 1980) pp. 17-39.

<sup>68</sup> The importance of the body is teasingly explored in Paradox VI of Paradoxes and Problems (1633) entitled "That the gifts of the body are better than the mind or of Fortune". See John Donne, Paradoxes and Problems ed. Helen Peters (Oxford: Clarendon Press, 1980) pp. 11-13. For an account of the Paradoxes see: Evelyn M. Simpson, "Donne's Paradoxes and Problems," in T. Spencer (ed.), A Garland for John Donne (Gloucester, Mass., 1931, rpt. 1958) pp. 23-42.

<sup>69</sup> George Williamson, "The Design of Donne's Anniversaries," MP 60 (1963) 183-191; Ralph Maud, "Donne's First Anniversary," Boston University Studies in English, 2 (1956) 218-225; Harold Love, "The Argument of Donne's First Anniversary," MP 64 (1966) p. 128.

<sup>70</sup> Arthur, *passim*; Barbara K. Lewalski, Donne's Anniversaries and the Poetics of Praise, (Princeton: Princeton University Press, 1973) pp. 225-229; Nicholson, The Breaking of the Circle ch. 3; O. B. Hardison, Jr., The Enduring Monument: A Study of the Idea of Praise in Renaissance Literary Theory and Practice (Chapel Hill, N. C.: University of North Carolina Press, 1962) ch. 7; Richard E. Hughes, "The Woman in Donne's Anniversaries," ELH 34 (1967) 307-326. On the Drury question see also: D. W. Harding, "Coherence of Theme in Donne's Poetry," Kenyon Review 13 (1951) 427-444.

<sup>71</sup> See in particular Barkan, pp. 48-9; Coffin, pp. 85-6.



<sup>72</sup> Rosalie L. Colie, "'All in Peeeces': Problems of Interpretation in Donne's Anniversary Poems," in P. A. Fiore (ed.), Just so Much Honour: Essays Commemorating the Four-hundredth Anniversary of the Birth of John Donne, (Pittsburgh, Penn.: Pennsylvania State University Press, 1972) p. 192.

<sup>73</sup> The marginal comment "The Entrie into the Worke" was not, of course, present in the 1611 text of the poem. Citations to the Anniversary poems are to Milgate's edition, though I have also drawn upon the introduction and commentary to be found in Frank Manley (ed.), John Donne: The Anniversaries (Baltimore: Johns Hopkins University Press, 1963).

<sup>74</sup> Webber, p. 51.

<sup>75</sup> Martz, Poetry of Meditation, p. 224 and p. 237.

<sup>76</sup> For an account of the text of the poems see Manley, pp. 50-61; Milgate, pp. lvii-lxi, 126-127.

<sup>77</sup> The emphasis on "me" and "I" at the conclusion to the poem is echoed in the conclusion to Of the Progresse of the Soule: "I ame / The Trumpet at whose voice the people came." A comment cited by Jonathan Goldberg is perhaps apposite to this discussion of the Anniversary poems: "Discourse, as Benveniste defines it, is precisely that set of structural coordinates in which 'I' is related to 'you' and 'it'." See Jonathan Goldberg, Voice Terminal Echo: Postmodernism and English Renaissance Texts, (New York and London: Methuen and Co. Ltd., 1986) p. 185.

<sup>78</sup> T. S. Eliot, "Whispers of Immortality" in Collected Poems 1909-1962 (London: Faber and Faber, 1963, rpt. 1974) p. 55. See, too, Eliot's oft-quoted assertion that "something...had happened to the mind of England between the time of Donne or Lord Herbert of Cherbury and Tennyson and Browning" in T. S. Eliot, "The Metaphysical Poets" in Frank Kermode (ed.), Selected Prose of T. S. Eliot (London: Faber and Faber, 1975) p. 64.

<sup>79</sup> Stephen Greenblatt, Renaissance Self-fashioning (Chicago: University of Chicago Press, 1980) p. 14.

## PART II

Chapter Five: The Body-machine: The Language of Anatomy  
in the Seventeenth Century.

## Introduction

In 1627 George Hakewill published his vigorous attack on "the common error touching natures perpetuall and universall decay". Hakewill's Apology or Declaration of the Power and Providence of God in the Government of the World can, in some measure, be seen as an answer to the informing conceit which Donne, some sixteen years earlier, had developed in his two Anniversary poems. Intellectual analysis, conducted through the medium of anatomy, revealed, for Donne, a world whose history is one of progressive decay. Decay, moreover, so permeates the world that the very skills employed in tracing its corrupting presence are to be distrusted.

It is difficult to believe that Hakewill did not have Donne's Anniversary poems in mind when he wrote that:

It cannot be sufficiently proved that Adam as he was the first, so hee likewise was the tallest of men, which in reason should be, were there in truth any such perpetuall decrease in mans stature as is pretended. 1  
(p. 203)

The key phrases here - "proved...in reason...in truth" - redolent of scientific rationalism, would seem to leave little discursive space for a poetic analysis of the world conducted along the paths which Donne had followed. Where Donne had conducted an anatomy only to find, in the end, that anatomical observation was itself riddled with evidence of imperfectability and doubt, Hakewill counts anatomy as being a means of arriving at certainty. "The noble and useful practise of anatomizing mens bodies" he suggests "was never brought into the bodie of a perfect art, till this later age" (p. 274). Citing ecclesiastical prescription against anatomy in the past



(Tertullian, Augustine, and Boniface VIII) he conceives of the subject as one which has been liberated from a superstitious (and Catholic) bondage. So, he is able to announce:

Never was it in any age so illustrated with lively and exquisite pictures, so encouraged with stipends, so furnished with schooles, fitting instruments, & all manner of helpes, and generally so honoured as it is at this day. And truly I have not a little wondered with my selfe, that an Universitie so famous in forraine parts as this of Oxford, was never to my knowledge provided of a publique lecture in this kinde, till now...

(p. 275)

In wondering, patriotically, about Oxford University's response to science, Hakewill has broached a topic which is still in dispute by historians of science.<sup>2</sup> It is true, though, that it was not until 1624 that statutory provision for dissection, under the direction of a Regius Professor, was made. Whatever the response of Laudian Oxford to anatomy, however, Hakewill's portrayal of the state of affairs is broadly optimistic.

A rather different state of affairs is portrayed in John Hall's The Advancement of Learning (1649). "Where have we constant reading upon either quick or dead Anatomies...?" he asks.<sup>3</sup> For Hall, anatomy makes a special claim on the intellect. The practice of anatomy, Hall suggests, is akin to the very exercise of reason itself. Such exercise is "no better way attempted, then if the veynes of things were rightly and naturally cut up".<sup>4</sup> By 1653, however, Nicholas Culpeper, prolific author and translator of medical works himself, felt it was necessary to apologise for producing an anatomical text for a market which had been swamped in material.<sup>5</sup>

An insight into projected methods of encouraging anatomical study

in England is provided by the publication in English of a Dutch Act, signed by the Public Notary of Amsterdam prior to 1659. The translation of this Act, dedicated to Samuel Hartlib, was designed as a spur with which to urge English anatomists to "keep up that reputation for Anatomical discoveries and skill that this nation hath of late deservedly enjoy'd".<sup>6</sup> What is of interest in the Act is the account it provides of the supply of anatomical material, together with its proposals for making the study of anatomy a commercially profitable enterprise. Under the terms of the Act, the States General gave Louis de Bils (one of the chief benefactors of the museum of anatomical curiosities in the Anatomy theatre at Leiden University), the right to:

take all the bodies of those that shall be executed by the hand of justice, whether military or Civil, as also of those strangers that shall die in the Hospitals, in all parts belonging to the States General; and so dissect the said carcases in such manner as himself shall think good for the satisfieing his own curiosity, and the promoting of knowledge for the common good.

(p. 3)

Such provision would suggest a considerable pool of anatomical material could be made available. With a constant supply of anatomical material, Louis de Bils was to set up an anatomical exhibition at Rotterdam (presumably a rival to the Leiden collection). The projected exhibition would display:

...many dead bodies dissected and embalmed in an extraordinary manner, in which bodies shall be shewn all the Veins, arteries, sinewes and Fibres severed from one another, but remaining fast, both where they first arise and where they end.

(p. 3)

With the aid of such material, it "shall be so ordered that":



...Lectures may be made...as well in summer as in winter, with discovery and demonstration of mistakes both of Ancient and Modern Anatomists, who in their dissections are hindered, by the spilling of blood, from seeing to the bottom of their work.

(p 4)

It was presumably in the hope of encouraging a spirit of free enterprise in England that this Act was translated into English.<sup>7</sup> What this translation suggests, though, is that anatomy as a science occupies an ambivalent position. It is "noble and useful", informed by the habits of sceptical scientific enquiry, the preserve of professional investigators. At the same time, it has the potential for pandering to public curiosity as a spectacle. Its link to the judicial process is confirmed, in that the state is willing to turn over the corpses of those who might be considered to have had a marginal existence within society (the executed, the bodies of "strangers") to the hand of the anatomist who will transform them into a means of raising money to advance the cause of knowledge.

We might contrast this utilitarian undertaking with an older, spiritually significant, investigation of the body. The Anatomy of the Body of Man was a translation of the work of Johann Veslingus, Reader in public anatomy at Padua in the 1630's and 1640's. Culpeper's preface provides the context for how he believed anatomy was to be understood. Anatomy shows man:

...as in a looking glass, you may see man turned the wrong side outwards, and all his internal parts laid open to your view... if such be the creature, what is the Creator?

(Sigs. A2<sup>r-v</sup>)

We have already met the image of anatomy as a mirror in which the observer sees reflected his own form. Here, the mirror transforms the observer's image of himself, reversing the inward and the



outward. Such a process, however, may lead to the mystical contemplation of God.

Culpeper's translation appeared in 1653, some six years before de Bils' prospectus was published in England. In the two texts, separated by such a short period of time, we can, perhaps, discern two methodologies which can only with difficulty be brought into harmony. Hakewill stands as mediator between these two undertakings. For Hakewill, the study of the human frame is utilitarian, a representation of a modern outlook. Yet it also provides evidence to be used in spiritual matters. There is no mention of the spiritual in de Bils's project. Culpeper's translation, on the other hand, secures its foundations in an older, spiritual sense of the body's significance. "For he that knows himselfe aright cannot but know all the world, because he is an Epitome of it" Culpeper writes (Sig. A) - a glance back at the old commonplace which anatomists had found so useful to their undertaking in the past. It is, of course, difficult to distinguish with any degree of certainty the forms of discourse of which Culpeper's text, and the project of de Bils, might be taken as examples. What may perhaps be the case is that a tension can be discovered between two possible ways of seeing the human body in this later period. The question I shall address in this chapter is how this tension manifests itself within the writing of the anatomists, and those with an interest in anatomy.

### The Sporting Rules of a Microcosm

In Alexander Read's Manuall of the Anatomy of Man, first published in 1634, we read the following description of the Aorta, the great artery which carries blood from the left ventricle of the heart into the body's arterial system:

.....before it come out of the Pericardium, it sendeth two small twigs, from each side one: which compass the basis of the heart like a garland, and send down according to the length of the heart other twigs: these are called Coronariae. 8

At first glance this description might appear to be admirable scientific language. It is terse, rooted in observation, and descriptive without seeking to uncover, through metaphor, anything of wider or deeper significance. There is no reference, here, to the heart as a monarch, or magistrate, or sun. However, the one simile which appears in the passage - "like a garland" - (ignoring, for the moment, the metaphorical implications of the word "twigs") might alert us to the possibility that all is not as objectively descriptive as first appears. The arteries which "compass" the base of the heart "like a garland" are the coronary arteries - the "Coronariae". The latin word corona, from whence is derived the term "coronary", signifies both a wreath of flowers such as might be worn by a king, and the halo which can sometimes be seen encircling the sun. Read's simile suggests that he is aware of the etymology of the word he is using. Both possible significations of the word - garland worn by a king, and halo surrounding the sun - are, of course, semantically apposite to a description of the heart which is derived from an understanding of the heart as a "king" in the body, or "sun" in the microcosm.

In other words, a scientist who undertakes to describe some aspect of the body in a language divorced from the habit and mind associated with the old analogy between microcosm and macrocosm may run up against a deeper problem. The language which he employs is not neutral. It may, instead, be thought of as arriving with its own set of conceptual terms which ensure that any breaking away from one system of thought into a new system is an undertaking fraught with



semantic difficulty.<sup>9</sup>

In the case of Read's Manuall these difficulties were to be acknowledged much later when, in 1682, Thomas Gibson, physician-general to the army in the early eighteenth century, undertook to re-issue Read's work. Gibson's revision is, virtually, a re-writing of the earlier text to bring it into conformity with "the newest doctrine of the most accurate and learned modern anatomists". The only element from the earlier text which is preserved is its methodology "which indeed is but little alter'd", but the language has become one in which things are "succinctly described".<sup>10</sup>

If Read, in 1634, found considerable difficulty in escaping from an older system of correspondence, then Alexander Ross, Chaplain to Charles I, and arch intellectual conservative, positively embraced that system. In Ross's The Newe Planet No Planet (1646) the Vicar of Carisbrooke undertook to defend his earlier attack on the observations of Galileo which he had advanced in his De Terrae Motu Circulari of 1634. Amongst the arguments which he deployed is an interesting use of the microcosm analogy:

I said that the sun in the world is as the heart in mans body, but the motion of the heart ceasing, none of the members stirre; so neither would there be motion in the world if the sun stood still: This (you say) is rather an illustration, then a proof. I grant it; for I used it as an illustration to discover with its light the weaknesse, and to dispell the darknesse of your opinion. And were it not an absurd thing to think that the arteries move, but the heart standeth still? So no lesse absurd is it to say that the earth moveth, but the sunne standeth still. Illustrations oftentimes are forcible proofs, and used they are both by Divines and Philosophers. 11

In anticipating the sceptical reader's attack ("This...is rather an illustration, than a proof") Ross is acknowledging the general distrust



of argument conducted along the lines of analogy which was, eventually, to result in the jettisoning of the whole microcosm - macrocosm system. But he does no more than acknowledge it, since he is convinced, still, that "illustrations are oftentimes forcible proofs".

We might expect no less than such a gesture from an author such as Ross, given that the complete programme of rational enquiry, of which a text such as Hakewill's is an early example, was itself regarded by Ross with deep hostility. For Ross, (and we might compare him here with Donne) the anatomist's art is a needless violation of mystery:

...take heed you play not the Anatomist...in the curious and needless search...you may well lose your selfe, but this way you shall never find God.

(Newe Planet, p. 117)

The anatomist who looses himself is a direct inversion of the Nosce Te Ipsum doctrine, where self-understanding is held to be the justification of the dissector's activity. Ross himself might be thought of as having embarked upon a curious and needless search with the publication of his Arcana Microcosmi (1651) which explores "the hid secrets of Man's Body" and which includes "A refutation of Doctor Browne's VULGAR ERRORS, the Lord Bacon's NATURAL HISTORY and Doctor Harvey's DE GENERATIONE" (title-page, 2nd ed., 1652). Browne, Bacon, and Harvey form a triumvirate whose methods were in direct opposition to those of Ross. Browne, for example, in Pseudodoxica Epidemica (1646) had specifically attacked "all deductions from Metaphors, Parables, Allegories, unto real and rigid interpretations".<sup>12</sup> To an allegorist such as Ross this attack could hardly be considered as anything other than a challenge to established methods of reasoning.

Ross's work illustrates, however, that for those who sought to defend the analogical system of reasoning the opposition was growing.

When Nicholas Culpeper published his translation of Partlicius' New Methods of Physicke in 1654 - a work which proclaims itself to be "a short view of Paracelsus and Galens practice" (title-page) - anatomy is defined, unashamedly, as a subject which "teacheth the harmony between one part of creation and another", and teaches also "the analogical comparation and reductions of things".<sup>13</sup> Culpeper, though, is soon on the offensive:

For whatsoever is in the universal world is also in man; not according to a certain superficial similitude as some fools prattle; but in deed and in reality, are contained in him whatsoever is in the whole theatre of the world.

(New Method, Sig. U7<sup>V</sup>-U8)

It is clear, from a statement such as this, that the battle which is being fought is essentially a linguistic battle. The system which Culpeper is defending might be thought of as one in which language and reality map onto one another through the agency of metaphor. Analogy is not an artificial construct of language, but a reflection of a world created analogically. Similitude is not "superficial" but exists "in reality".

In the same year that Culpeper's New Methode appeared, Robert Turner, a translator of Paracelsus, was describing the heart as:

...primum vivens & ultimatum moviens,...seated severally by himselfe, in the midst of the breast as Lord and King over all the members, and all the members receive the blood of life from the heart...

14

The body is seen, here, as monarchical and, at the same time, a reflection of a conservative cosmos. In much the same fashion, but much later, Nathaniel Wanley was to describe the heart in 1678 as "the first intelligence...in the world...a kind of monarch in the little world".<sup>15</sup> These are then anachronistic accounts of the body which rely on an essentially figurative awareness of language for their authority.



One way of dismissing these explorations of the cosmic significance of the body is to place them entirely within the sphere of amateur enquiry, which existed on the fringes of the medical establishment. Robert Turner, for example, was a professional astrologer, a practice which Culpeper, too, indulged in. Culpeper attracted the hostility of the London medical profession by producing, in 1649, a translation of the Pharmacopoeia of the College of Physicians (D.N.B.). Lack of formal medical education might account for a willingness to turn to old methods of enquiry. Such seems to have been the case of Margaret Cavendish, Duchess of Newcastle, when in 1655 she published her Philosophical and Physical Opinions. Her work, replete with microcosmic analogies, is, she affirms, the product of an entirely untutored investigation. "I never read of anatomie" she writes "nor never saw any man opened, much less dissected, which for my better understanding I would have done".<sup>16</sup>

Paradoxically, the writings of Turner, Culpeper, Ross, Wanley, Cavendish and others both rebel against contemporary authority whilst they look to older authorities - Galen, Hippocrates, Paracelsus - to support their observations. What, in some measure, they all share is a willingness to preserve the old analogical system of reasoning, even as they are aware that that system is under attack. Their conservatism manifests itself in a refusal to examine language as anything other than a reflection of an observable reality. That language might possess an autonomy of its own, a means whereby the structure of ideas is itself predetermined, neither concerned them, nor gave them any pause for thought. The same, however, cannot be said of Jean Baptiste Van Helmont, whose major work, Ortus Medicinae first appeared at Amsterdam in 1648 and was translated into English by John Chandler, and published under the title Oriatrike in 1662.



It is only recently that "Helmontanism" has been recognised as an important influence on the work of more orthodox scientists.<sup>17</sup>

Van Helmont's work was translated by scientists such as Walter Charleton, and was studied carefully by Robert Boyle. In this context, it is probably important to recognise that Paracelsian doctrine encouraged the idea of anatomy as a universal enterprise, a dissection performed upon the world in general. Thus, as late as 1657, we find Henry Pinnel recording an observation of Oswald Croll (professor of Medicine at Marburg) which might have acted as the manifesto of Donne's anatomy of the world:

It is not the local anatomy of a man and dead corpses,  
but the essential and elemental anatomy of the world  
and man that discovereth the disease and the cure. 18

It is difficult to assign the encyclopaedia which is Oriatrike, however, to any one set of discursive rules, or any one consistent intellectual framework. "God hath bestowed upon man nothing more pretious than reason" Van Helmont writes (p.16), and he observes that simply to affirm that God is "the way, the truth, the life, the light, of living creatures, and of all things" may be pious, but "this is not reason" (p. 15).<sup>19</sup> Reason, however, placed in opposition to faith, brings Van Helmont into a similar area of doubt and scepticism which the Cambridge platonists were to explore. "Reason doth on every side, bring forth onely a thinking, instead of Faith" (p. 16), he writes, and thinking, the exercise of reason produces only more thought. Reason thus appears as a self-enclosed and frustrating enterprise. An untrustworthy ally, reason must give way to a more fideistic appreciation of nature:

Whence I concluded with myself, first, that reason doth generate nothing but a dim or dark knowledge, or a thinking. The next, that the knowledge of truth, of things, and premises, do proceed, not indeed from reason; but from a far different begining, to wit, the intellectual light of the Lamp or Candle. (p. 18)

The light of the lamp or candle, a phrase which was to find an echo in the work of the Cambridge Platonists, is the illuminating glow of understanding arrived at through the revealed truth contained in the scriptures. "Reason", on the other hand, traces its ancestry back throughout the schools to the heathen philosophers. Those who would defend reason, Van Helmont affirms "have rested more in the lessons of the heathens, than in Paul" (p. 21). Indeed, "visions of the phantasie in dreams" may be more rewarding than the "discourses of reason" encouraged by the universities (p. 21). This view results in a plea which reverses the pact of Faustus:

Therefore I begged of the Lord, that he would wholly sweep out of my minde, every knowable thing, and the profane desire thereof... (p. 23)

Thus armed with a species of holy ignorance, Van Helmont initiates an attack upon the available methods of scientific enquiry. In particular, the Ramist method of enquiry, with its methodology based on division of knowledge, is dismissed:

For by how much the more anything is divided into parts, by so much the more it approacheth to things infinite, and therefore it is the lesse to be known, sliding into irregularity, and the more subject to change and opposition. ( p. 32)

Such an attitude might hardly be thought of as sympathetic to the practice of anatomy. Indeed, the whole programme of understanding advanced by Van Helmont would seem to militate against the undertaking of the rational scientist.



However, and herein we encounter the paradoxical nature of Van Helmont's attitude, his writings reveal a deep-seated hostility to the old system of reasoning which relied upon the analogy between microcosm and macrocosm. In particular, Paracelsus' explorations of the physical dimension of the analogy seem~~y~~, to Van Helmont, to be little short of blasphemous. The belief in a harmony existing within and between the lesser and greater worlds is a belief which de-thrones God. Paracelsus, Van Helmont observes:

...saith, that man (whom elsewhere by an etymologie or zodiack, he boasts to be a drawn epitome of the whole Universe, and feigneth that he is more glorious by the dignity of that extraction, than by the image of the creator) is a most miserable monster, everyway formed by mineral alone... (p. 322)

The complete system of reasoning contained within the belief in, and exploration of correspondence is false. It debases both man and God by linking both to a corrupt and decaying world:

Away with thy trifles: for we have no fountains of salt, no reducements of venal blood into feigned and lurking mettals...Neither also, are there microcosmical Lawes in us, any more than the humours of four Elements mutually agreeing in us, and the fights or grudges of these; For with Nazianzen I cannot tie up man into the sporting rules of a microcosm: for I had infinitely rather to be the Image of God, than the image of the corruptible and torturing world (p 322-3).

Van Helmont's dismissal of the microcosm analogy rests not only on fideistic evidence. There is also another set of objections which returns us directly to the linguistic debate which has been already touched upon. In concluding his attack on the system of correspondence, Van Helmont writes:

The name therefore of Microcosm or Little World is Poetical, heathenish, and metaphorical, but not natural or true...the life of man is too serious, and also the medicine thereof, that they should play their own part of a parable or similitude, and metaphor with us. (p.323)



The figurative use of language, Van Helmont argues, is the final prop of the old system. It is as though the anti-rationalist can suddenly be seen standing next to the founders of the Royal Society in uncovering metaphorical language as in part responsible for reliance upon the older system of reasoning. But Van Helmont's work also straddles two worlds in its distrust of reason. A tension is thus established in which fideism promotes a refusal to accept the fruits of rationalism, whilst it also displays considerable sympathy with the type of linguistic reform which was to go hand in hand with the later endeavours of the Royal Society. This tension is perfectly expressed through Van Helmont's own account of an earthquake to which he was witness in 1640. As a latent rationalist, he realised that the intervals between the tremors should be measured, but as a fideistic philosopher, he measured those intervals as "the space of repeating the apostle's creed" (p. 93).

The situation which seems to exist, then, is one where the informing conceit of the microcosm is gradually being displaced by an awareness that figurative discourse may have little or no part to play in the examination of nature. Even those who rely on the use of correspondence seem to exhibit an awareness of the fact that they are relying upon a system whose linguistic foundations are under attack. The effect that this attack was to have on anatomy, and on anatomical writing, was to be crucial, since the exploration of the human body was a central part of the programme both of those who would defend the methods of reason by overt analogy, and those who showed hostility towards those methods. As the next section of this chapter hopes to demonstrate, anatomy became, perhaps inevitably, an area of study in which linguistic reform was to be of the utmost importance. At the

same time, it is perhaps worth keeping in mind that when, in 1659, Thomas Winston published his anatomy lectures given at Gresham College, the liver was described as "the prince of this region" (i.e. the abdomen) and the thorax termed "the middle Region, in which reigneth the king of life".<sup>20</sup> Obviously the "sporting rules" of the microcosm were not to be easily ignored.

### The Attack on Figurative Language

The struggle for a form of scientific discourse unencumbered by metaphor, a struggle associated with the formation of the Royal Society, has been well documented.<sup>21</sup> The flourishing (if we are to believe Hakewill) science of anatomy was not aloof from such linguistic discussion. Indeed, it might be possible to see a text such as Fletcher's The Purple Island as anticipating the work of later theoreticians of scientific language, insofar as Fletcher's poem subjects the human body to two forms of autonomous discourse. The body, in Fletcher's text, may conform to the narrative of Thirsil and be placed within a 'poetic' frame. At the same time the copious marginal notes point to an alternative frame within which the body may be understood. That alternative system is one which brings us directly to the problem that scientists in the mid-seventeenth century encountered when they began to attend to the problem of the medium through which the dissected body was to be depicted. To what extent was it possible to contemplate a "reformed" scientific language, in which the relationship between "words" and "things" is fixed, so that the sliding ambiguities of figurative language could be avoided?

Harvey's discovery of the circulation of the blood, a discovery which was first announced in 1628 with the publication of Exercitation Anatomica De Motu Cordis et Sanguinis in Animalibus at Frankfurt,



provides us with an example of the manner in which linguistic debate could surface in scientific discourse. Harvey's hypothesis of circulation of the blood is formulated in the eighth chapter of De Motu Cordis, and rests on an analogical observation made, originally, by Aristotle and found throughout his writings. Harvey is careful, in stating his hypothesis, to indicate that his reasoning depends upon an awareness of analogy: "I began to bethink myself whether it (the blood) might not have a kind of movement as it were in a circle" (Coepi egomet mecum cogitare, an motionem quandam quasi in circulo haberet ) (De Motu Cordis, p. 75) If this statement seems somewhat hesitant in its formulation, then there is an equally tentative quality to the re-formulation of the thesis a few lines later: "We may call this motion circular in the same way in which Aristotle says that the air and the rain imitate the circular motion of the heavens" (De Motu Cordis, p. 75).<sup>22</sup> In other words, Aristotle's statement of circularity is an indication of how circular motion may be discerned through analogy, rather than being simply a statement of reality.

In the following chapters of De Motu Cordis Harvey proceeds to demonstrate how the circular process does, in actuality, exist in the body. But the opening statement remains as an example of the scientists' hesitancy when confronted by the rhetorical stratagems of language. Is motion circular in reality, or is it held to be circular in a figurative manner? Within the context of the growing awareness of the inability of the microcosm/macrocosm analogy to describe natural phenomena, this question~~s~~ is of considerable importance. Harvey, as the eighth chapter of De Motu Cardis would indicate, was indebted to the habit of thought associated with the discovery of correspondence.<sup>23</sup> He writes:



So is the heart the first principle of life and the sun of the microcosm, just as the sun deserves equally to be called the heart of the world, by whose virtue and pulsation the blood is moved, made perfect, quickened, and preserved from corruption and lumpiness, and this familiar household god performs his office for the whole body by nourishing, cherishing and quickening, being the foundation of life and author of all things.

(De Motu Cordis, p. 76)

The heart as "sun", "household god", and "author" are terms which suggest that Harvey, in 1628, utilized a figurative language based on the discovery of correspondence in a relatively unselfconscious fashion. Yet the hesitancy that had been displayed a little earlier in this chapter of De Motu Cordis had already surfaced in the text, in the famous dedication to Charles I with which the text is prefaced. In 1628, in that dedication, Harvey had observed that for the king:

...knowledge of his own heart cannot be unprofitable  
...as being a divine example of his own actions (so  
have ever men been wont to compare great things with  
small).

(De Motu Cordis, p. 3)

We might read this as a clear statement of the principle of correspondence, but we might also read the phrase in parenthesis as a disavowal of the author's responsibility for making such a correspondence apparent, it being the case simply that he is following the received wording on such an occasion. If this statement is compared to the first English translation of De Motu Cordis, which was published in 1653 and was itself based on the Latin edition of 1648, then the text's hesitancy in developing the microcosm/macrocosm analogy is even more apparent:

...knowledge of his own heart cannot be unprofitable  
...as being a divine resemblance of his actions (so  
us'd they small things with great to compare).

(De Motu Cordis, 1653 ed., sig.2\*)

The changes are significant for what they tell us about scientific language. "Example" has become "resemblance", a rather more casual connection between king and heart thus being established.<sup>24</sup> But the parenthetical phrase now confirms the author's distance from the observation that has been made that kings are like hearts. That observation is now placed firmly in the historical past, with the implication, perhaps, that the very terms of the comparison are suspect.

We would expect such suspicion given that, by 1653, Hobbes had argued that the rhetoric of scientific disputation and record had to be over-hauled. Any oration, Hobbes had observed in his Art of Rhetoric (London, 1637) is "graced by animation", and the chief means of animating a text is through the introduction of metaphor.<sup>25</sup> But metaphors are deceitful, as Hobbes had been at pains to establish in Leviathan:

In all rigorous search of truth, judgement does all except sometimes the understanding have need to be opened by some apt similitude; and then there is so much use of fancy. But for metaphors, they are in this case utterly excluded. For seeing they openly profess deceit; to admit them into counsell or reasoning were manifest folly.

(Works III. 59) <sup>26</sup>

It need hardly be said that Hobbes's theoretical rejection of metaphor had little effect on his own practice. But theoretically metaphors are held to be deceptive since they employ words in a manner divorced from any primary signification. In their appeal to "fancy", metaphors subvert "judgement" upon which the main burdening of reasoning in "demonstration" is held to rest. Above all, words used in a metaphorical sense lead to confusion because their significance becomes fluid or arbitrary.



It is no longer the case, then, that the scientific text and the poetic text can be seen as sharing a common stock of figures or devices. From henceforth the two are to become autonomous. Once again, The Purple Island seems to anticipate this split. In Fletcher's text two orders of discourse appear, though they share the same page, and, presumably, the attention of the same reader. After Hobbes specialization of language has been formally recognized, and each specialization can be held to be mutually exclusive of the other.

To term this process of exclusion a struggle might seem to be something of an overstatement. But when we turn to the theoreticians associated with the early years of the Royal Society, the violence of their objections towards metaphor in scientific discourse prompts the feeling that the process is one in which one form of language is struggling against another. The issue at stake is one, not just of clarity, but of confronting the question of whether or not it is possible to achieve certainty about any natural phenomena. Thus Joseph Glanvill, in his Vanity of Dogmatizing published in 1661, argues that where:

...words are imposed arbitrarily, having no stated real meaning; or else distorted from their common use, the mind must be led into confusion and misprision; and so things plain and easy in their naked natures, are made full of intricacy and disputable uncertainty.

27

As Glanvill perceives it, the problem of certainty lies in the alarming tendency of words to act in a capricious fashion. Words, language, govern the structure of thought, but words which are unfixed possess the disconcerting tendency of imprisoning the mind within patterns of thought which make the world appear as intricate or uncertain. Thomas Sprat's famous pronouncements concerning language bring us back to the notion of language being the site of a struggle.



Sprat's own rhetoric has the effect of investing language with an animated (and malicious) life of its own, against which the honest scientist is constantly at war: "Who can behold without indignation", Sprat demands "how many mists and uncertainties these specious TROPES and FIGURES have brought on our knowledge?"<sup>28</sup> It was, Sprat claimed, in full awareness of the deceitful nature of language that the Royal Society, in their discourse, aimed:

to reject all the amplifications, digressions, and swellings of style: to return back to the primitive purity, and shortness, where men deliver'd so many things, almost in an equal number of words...preferring the language of Artizans, countrymen, and Merchants, before that of Wits and Scholars.

29

The return, then, is a return to an original, pure, and (in Sprat's eyes) bourgeois language, undisturbed by political or ideological conflict.

The civil war, for example, could be seen as a period of linguistic degeneracy where language "still fashioning and beautifying itself" reflected the external political struggle. Language became as anarchic as the society in which it was rooted: "...it receiv'd many fantastical terms...and many outlandish phrases".<sup>30</sup> From linguistic confusion, the Royal Society may rescue words, and prescribe rules.

The linguistic debate of the 1650's and 1660's may be seen as a search for some type of origin. In expressing the discussion thus, we might keep George Steiner's formulation in mind, that the linguistic endeavour in the seventeenth century is an attempt "to reverse the disaster at Babel".<sup>31</sup> Herein lies a paradox. For if language is divinely given, it was also divinely confused. Certainly divine confusion is the outcome of the "artizan" work of Nimrod, as Milton

expressed it in Paradise Lost, for it was God who, having created language (and bestowed upon Adam the power of linking "things" and "words") then confuses the language of the human race. God "in derision":

... sets  
Upon their tongues a various spirit to raze  
Quite out their native language, and instead  
To sow a jangling noise of words unknown:

(Paradise Lost, XII. 52-55) 32

Language is, then, a forgetting, an erasure, and a punishment exacted by a derisive God. The ancestry of such linguistic confusion may be traced to the Fall itself, and the theoreticians' attempts to uncover language in its pre-razed state may equally be seen as an endeavour to return to the Adamic ideal of language's pre-fallen state. Perhaps this may account for the manner in which those connected with the Royal Society sought an original simplicity in the words they were to use. Thus John Wilkins, in his Essay (published the year after the first appearance of Paradise Lost) argued that:

...though the varieties of phrases in language may seem  
to contribute to the elegance and ornament of speech;  
yet like other affected ornaments, they prejudice the  
native simplicity of it, and contribute to the  
disguising of it with false appearance. 33

"Native simplicity" echoes Clanvill's "naked natures". Language, as Cowley expressed it in his Ode "To the Royal Society" has been ensnared in "pleasant labyrinths of ever fresh Discourse", a linguistic Bower of Blisse where the eye of philosophy is entertained "With painted scenes and pageants of the Brain" rather than the "solid meats" of observation and record.<sup>34</sup> From this maze, if we are to believe the members of the Royal Society themselves, language has been rescued. By 1676 Joseph Clanvill was able to proclaim that, so far as scientific



discourse was to be considered, language was now "as fast as Marble".<sup>35</sup>

The reality is, perhaps rather different. For all the Royal Society's propagandizing claims on behalf of its programme of linguistic purification, what, in essence, has happened, is that one set of metaphors has given way to a new set. In terms of the discourse of the body it is possible to see this exchange quite clearly. The "sporting rules of a microcosm" are exchanged for the Cartesian notion that bodies, like the universe itself, are best expressed not in terms of other bodies, but in terms of the machine.<sup>36</sup>

We have seen that, in the very formulation of his theory of circulation, Harvey's language displays a certain ambiguity of phrase. Is the heart an "example" (1628) for the king to model his actions upon, or does it merely provide a "resemblance" (1653) of those actions? The question is not merely one of precise scientific record, but of the political framework into which the body and the body-politic are to be located. But in phrasing that question we need to be aware of the fact that Harvey is writing in the period during which the hitherto available network of comparisons and similarities is under attack. A new system of analogy is appearing, and within that system the heart neither resembles nor is an example of kingly government. It is no more (and no less) than a machine operating within a larger machine.

Harvey himself was alive to the analogical possibilities of mechanics. As Charles Webster has observed:

Harvey's conception of the cardiovascular structure as a hydraulic system, in both terminological detail and general framework, owed something to the work of the hydraulic engineers who were so active in the period...These experiences may have assisted Harvey...to think more realistically than other anatomists about the dynamics of the circulatory system.



The first reference to a machine in Harvey's work can be found in a discussion of the theory of circulation. This reference appears in Harvey's Prelectiones Anatomie Universalis - the notes to the lectures in anatomy which Harvey gave at the College of Physicians in 1616. It is important to note that the reference itself is almost certainly not a formulation of an idea which Harvey held in 1616, but was added much later.<sup>38</sup> The specific machine that Harvey seems to have had in mind was, as Gweneth Whitteridge, following Charles Webster, has observed, the pumping mechanism of a fire-engine - a type of valve system first described in 1615.<sup>39</sup> Harvey noted:

WH it is certain from the structure of the heart that the blood is perpetually carried across through the lungs into the aorta as by two clacks of a water bellows to raise water.

40

Harvey's analogy was developed by other anatomists, notably Francis Glisson who, in his lectures at the College of Physicians delivered in 1653, referred to the "spouting out of the blood from the harte" which "may be compared to the casting out of water by the engine of late invention for the quenching of fire".<sup>41</sup>

Mechanics may, then, be thought of as the new "field of metaphor" (to adapt Schleiner's phrase) which is to be employed in describing the human body. Joseph Glanvill, whose distrust of metaphor we have already observed, was not himself averse to deploying metaphor, simile, analogy providing it was the new, and not the old analogy which was developed. Thus, in his Vanity of Dogmatizing we find the body first defined in terms of a precision mechanism, and from this initial observation we are asked to conclude that the creator of the body is no longer, as the old system would have it, an architect, but a mechanic:

To suppose a watch, or any other the most curious Automaton by the blind hits of chance, to perform diversity of orderly motions, to indicate the hour, day of the moneth, Tides, age of the moon, and the like with an unparallel'd exactness, and all without the regulation of Art, this were the more pardonable absurdity. And that this admirable Engine of our Bodies, whose functions are carried on by such a multitude of parts, and motions, which neither interfere, nor impede one another in their operations; and by an harmonious sympathy promote the perfection and good of the whole: that this should be an undesigned effect, is an assertion, that is more then Melacholies Hyperbole.

42

The machine removes chance, the random, from nature. The body is a system which works according to strict mechanical laws. The "sporting rules" have been replaced by a law of motion as precise (and as predictable) as a watch which (emblematically) may subject the movement of time, tides, and the moon to rigorous chronology.

The situation that we are tracing, then, may be expressed in the following way. At the moment when anatomy, as a branch of medical science, seems confirmed in its status, the old justification of that science, that it expressed the creator's intention in the world at large, is being removed. The grounds of that old justification were essentially to be uncovered in the idea of the harmony that was believed to exist between the lesser and the greater portions of creation. A new harmony is established - the harmony of the machine, a type of perpetuum mobile which, once set in motion by the great mechanic, needs no adjustment but moves according to the laws of motion devised by that mechanic. At the same time, in scientific writing, under the impetus of Hobbes, and, later, the early fellows of the Royal Society, the search is afoot for a new method of expressing the natural world. At first, it would seem that this urge to find a new expression will result in an abandonment of every linguistic element that supported the old system:



metaphor, simile, comparison. But, in the event, what is adopted is no more than a new system of figures. Cowley's conceit, in his Royal Society ode, is to describe the gathering of knowledge as a process which begins, in a truly modern sense, with Bacon. Bacon's endeavour is to release knowledge from the snares of language. Bacon enters the "orchard" of philosophy, opens it to all, avoids the false fruit of the forbidden tree, but gathers the true fruit and then:

When on heaps the chosen Bunches lay,  
He prest them wisely the Mechanick way.

(Works, p. 42)

It remains, in this chapter, to trace the implications of the "Mechanick" way as it surfaces in the language of the anatomists.

### Man the Machine

The implications of the mechanical analogy for anatomists were enormous. Almost the first result is that the easy correspondence which, for the previous century, had informed both scientific and political writing is called into question. When, in Shakespeare's King John the King appears before the walls of Angiers, the language which he uses is expressive of a belief that cities, and bodies, are organisms that require monarchical organization. The city, in John's speech (II. i. 206-234), is addressed as a body, with "winking" eyes, and encircling walls which "as a waist doth girdle you about" (217). The king's arrival will "save unscratch'd your city's threat'ned cheeks" from French artillery which otherwise would "make a shaking fever in your walls" (228).<sup>43</sup> The king's place is within the city, and once within its walls both king and city should be able to provide for each other the security of the composite organism which both (it might be assumed) desire. John's "labour'd spirits...craves



harbourage" inside the city, and the suggestion would seem to be that, once re-united with the city/body, the king's "spirits" may revive just as the city's safety is assured by once more having the king's guiding spirit within its walls.

The language of machinery ensures that such an easy correspondence may no longer exist. In a machine who can identify the most important or the least important part of the mechanism? This is the question posed by the anatomist Paul Barbette, whose Anatomia Practica first appeared in a Dutch edition of 1659, and was published in English in 1672. Barbette set out, in Book III of his work, to examine critically the age-old Galenic distinction of "principal" or "noble" parts of the body (the internal, composite, organs). If the body is considered organically, Barbette suggests, the debate could proceed endlessly as to which was the most "noble". But once the body is conceived of as a machine, then we must conclude that:

All things in our body are joyned together, as in a clock, one cannot be without the other, neither is the most despicable wheel less necessary than the Hand of the Clock itself without which it cannot be accounted a clock. 44

Mechanism is much more than an alternative system of description, it may call into question a wider structure, and one which reaches out into areas of human activity which have little direct relationship with the anatomy theatre and what took place therein.<sup>45</sup>

It is, however, possible to see two systems, one mechanic the other organic, in opposition to one another. That opposition could, and did, express itself in a language which it is difficult not to define as political. If, for example, Barbette's clock is, in the end, a mechanism which exists to assert the republican nature of the body

politic, then, in the writings of the English anatomist Samuel Collins a rather different set of priorities can be glimpsed.

Collins' System of Anatomy appeared in 1685. The very word "system" might alert us to the possibility that this is to be a dissection of the body based upon the new, mechanical, principles. Any such expectation is confounded on the very first page of the work, in the Dedication to (appropriately) James II, where Collins announces his general intention behind the whole work. That intention, he claims, is:

...to give a pleasant prospect of the elegant building of Man's body...I will shew you a summary of the several apartments of a humane body, and the rich household stuff and fine furniture contained in them; (Collins, I. 1) 46

This, it need hardly be said, is not the language of mechanics, but the language of Helkiah Crooke some seventy years earlier. Indeed, it is suddenly as if we had stepped back into Spenser's House of Alma once more. Thus anatomy is defined as "a curious art" which is to be understood as

...a key unlocking the skull, the ivory cabinet of the head...whereby you may see the more Noble Jewel of the Brain (the Pallace of Minerva) encircled with fine vails, investing the meanders of its Ambient parts, which being opened you may treat yourself with the fruitful Branches of diverse Arterial and Venal Ducts, and with various sinus as so many Cysterns of Vital Juice...many minute fibrils, the channels of nervous Liquor...into the more remote apartments of the Body.

(Collins, II. Sig. q<sup>r</sup> "Preface to the Tables")

The adjectival opulence of this passage might suggest that the theoreticans of the Royal Society had never existed. The body is a baroque structure, through which the observer is invited to wander, as Guyon and Arthur had once wandered. The body exists as a cabinet of rarities, a delightful (and wholly visual) experience of diversity



and detail. Collins' tour through the body is akin to the appreciative stroll through the ornate splendour of the body which we have noted in earlier anatomic texts, where the observer notes the details of the body's construction as though he were moving through the rooms of a great house:

...and the three Apartiments are beautified with Membranes, as with curious Hangings (consisting of many well-spun Filaments, close struck, and curiosly interwoven with each other in variety of postures) encircling the choice Household stuff of the Viscera...

(Collins, II. Sig. q<sup>r</sup> "Preface to the Tables")

That last phrase renders the description almost grotesque, as if we had been asked to forget that the body was anything other than an interweaving of textures, and then had suddenly been reminded that it was the skin concealing the intestines that we were appreciating.

Collins' celebration of the visual richness of the body, which belies the idea of "system" suggested by his title, is also suggestively aware of the body's emblematic role within a wider, political, sphere. If the body is an aristocratic structure, it is also fiercely hierarchical. In the body, Collins writes, "the inferiour parts are subordinate to the superior...which speaketh the admirable artifice of the All-wise and omnipotent agent" (Preface to Vol. I, p. xxviii). He continues:

The oeconomy of the Body politick, doth much resemble that of the body material, in which all the members are subordinate to one Head, which is much akin to the best constitution of monarchical Government...

(Collins, Preface to Vol. I. p. xxviii)

The body, mediated through Hobbes, becomes an emblem of stability, hierarchy, and social regulation. If Harvey had seen the heart as being, in itself, some type of example or pattern of monarchical



government, Collins sees the complete system of the body as expressive of that system.

In order to promote this monarchical account of the body, Collins is (as we can see from the passages above) determinedly anti-mechanistic. It becomes, of course, rather more difficult, as Barbette suggested, to see the body as a hierarchical system once the various components in that system have been reduced to so many wheels, springs, and cogs. But mechanical analogies are difficult, even for an anti-mechanist such as Collins, to avoid. In chapter one of the first volume mechanism is introduced, but with a certain note of hesitancy. The body may be "mechanically described", and it may be termed a "rare machine" (p. 2), but room must also be found for an older conception of the body which accommodates rather more comfortably the author's political understanding of the organism. By the time Collins comes to describe the heart, in Book II, chapter XIV, the struggle of metaphors competing with one another has become absolute. The heart is, without doubt, a "choice machine", but Collins continues:

The heart being the most noble machine motion belonging to the excellent fabric of mans body, may be truly entitled the sun of its Microcosm, from which the rays of Life, seated in the Blood, are displayed by Arteries into all parts of this little world.

(Collins, Vol. I p. 714)

A rhetorical impasse has been reached. The heart is both a "noble machine motion" and, at the same time, "the sun" of the body's microcosm. Mechanics are clumsily welded onto the older system, and the confrontation of the two sets of metaphors are expressive not of any confusion as to how the body works, but of confusion as to the analogical pattern into which the body will be located. The point remains, that, as the Royal Society had indicated, language is not a

neutral medium in which the scientist may convey observation. A choice of metaphor, or analogy, may itself have entailed a conscious (or perhaps unconscious) decision as to how the world as a whole is to be understood.<sup>47</sup>

After Harvey, mechanical accounts of the body begin to predominate. The Cartesian formulation of the mechanical laws of nature is, clearly, of enormous importance to anatomy. Descartes himself had, of course, been confirmed in his notion of mechanics partly through the work of dissection he had undertaken.<sup>48</sup> Within such an intellectual ambience, it is possible to argue that it became increasingly difficult to appeal to the body as the standard of order applicable to society. That is not to say that, at some time in the 1640's and 1650's, the body had suddenly become republican. But it is more difficult to find space for the sovereign within a machine, than it is within the complete system of correspondence in which the body had been caught for so long.

Again, this is not to argue that the body analysed in terms of mechanics became divorced from any analogical place within a wider analysis of society. The situation is, perhaps, one in which rhetorical appeal to the body has given way to an understanding that, just as the body may be analysed mechanically, in terms of functions, so society may be analysed in a similar fashion.<sup>49</sup> As early as 1620, for example, Bacon in the Novum Organum had recommended that all phenomena be analysed according to common principles:

We moreover recommend that all natural bodies and qualities be, as far as possible, reduced to number, weight, and measure, and precise definition; for we are planning natural results and not mere theory; and it is a proper combination of physics and mathematics that generates practice.

(Bacon, Works I. p. 202-3)



Society and the body reduced through precise analysis is quite a different undertaking to that in which both are simply confirmed in their relative positions in the cosmos through the discovery of likeness, similarity, and signature.

In Collins' spectacular account of the body the attitude which the observer is invited to adopt is one of wonderment. Guyon and Arthur, to recall Spenser's account once more, behold the internal structure of the body with "rare delight" and "gazing wonder". To "reduce" the body or nature, as in Bacon's account, to "number, weight, and measure" is to abandon wonderment for measurement. Is this in fact the case? Does the mechanical undertaking render the body familiar, known, and mundane? Initially, the answer would seem to be no, since the replacement of microcosmic structure by mechanistic structure involves the appreciation of an alternative, but complex process, before which the observer may stand in as much awe as Guyon and Arthur stood before the Port Esquiline. Indeed, the very recommendation that Bacon advocates, to reduce natural bodies to "number, weight, and measure" is, itself, one that has its origin in a Biblical hymn of praise and wonderment at the immense capacity of the creator: "Thou hast ordered all things in measure, and number, and weight" (Wisdom 11, 21.).<sup>50</sup>

The mechanical configuration of the body may, in fact, be cause for further wonder, since it provides another perspective on the nature of the first mechanic, God. Thus Walter Charleton, Royal physician and, according to Webster, the "intellectual barometer of the age",<sup>51</sup> proposes as his subject in his Enquiries into Human Nature (1680), the great automaton of the body:

...a system of innumerable smaller engines, by infinite wisdom fram'd and compacted into one most beautiful, greater automaton.

52

The aesthetic appeal of the body-machine lies in its complexity, its



harmonious composition of parts and functions, and in the contrast between the smallness of the individual components and the relative size of the whole. Such mechanical mastery indicates, so Charleton and his contemporaries believed, the absolute sureness of a master-mechanic, the engineer of the complete system. Thomas Willis, in a similar fashion, in his Anatomy of the Brain (first published in 1664) concluded that the dissection of the human brain was akin to the taking apart of an enormously complex watch. When the scientist has considered the complex mechanical system of "wheels...small pins, and all the make and provision of a clock" Willis concludes that he should "acknowledge the Artist, to whose Labour and Wit he owes all these things."<sup>53</sup>

Fundamental to these accounts of the marvellous structure of the body-mechanism is the test of imitation or reproduction by human art. The mechanical engine is, first and foremost, a product of human ingenuity. The same is not true of the mechanical structures of nature. Within the fractile world of insects, for example, analysis may be conducted along the lines set down by the "real, the mechanical, the experimental philosophy", but the final conclusion is that the engines observed are unique, they resist all imitation. Thus Robert Hooke, observing the feet of flies, writes that:

...Nature does not only work Mechanically, but by such excellent and most compendious, as well as stupendious contrivances, that it were impossible for all the reason in the world to find out any contrivance to do the same that should have more convenient properties.

54

These accounts might suggest that even where nature in general, and the body in particular had been "reduced" by the mechanical undertaking, the observer still sought to inculcate in the reader both an aesthetic sense of the structure that was under observation, and a sense of the machine being "subtle and mysterious" (to cite Charleton

once more). The response evoked is the same, whether it is an ornate building or complex machine that is examined.

To argue thus, however, is to ignore a rather different set of responses which these texts seek to provoke in the reader. The reader is invited to wonder at complexity, or at the inability of human resources to reproduce what is seen, but he or she is not allowed (or very rarely encouraged) to believe that these structures will remain for ever unfathomable. In fact the complete mechanical undertaking is charged with optimism. If a given structure is hard to understand now, there is strong reason to believe that it will, in the future, reveal its secrets to the mechanical philosopher. "Regions of Art have been discovered" Cowley for example observed in 1661, "which the ancients as little dreamt of as they did of America".<sup>55</sup> The implication is clear. Further lands remain to be discovered, and there is no obvious reason why they should remain hidden. "The process of Art is indefinite" Henry Power wrote in 1663, "and who can set a non-ultra to her endeavours?"<sup>56</sup> In that phrase the image of the scientist as heroic discoverer emerges. The inscription on the columns of Hercules - "Ne plus ultra" - is transformed into the motto of the emperor Charles V - "plus ultra", yet further.<sup>57</sup> For Henry Power, the "pretty Engine" of the insect-machine will, in the end, conceal no secrets. Likewise the dense structure of the human body will be forced to reveal itself. The body, mechanically conceived of, is also mechanically investigated:

The knowledge of man (saith the learn'd Verulam) hath hitherto been determin'd by the view or sight, so that whatsoever is invisible, either in respect of the fineness of the Body itself, or the smallness of the parts, or of the subtilty of its motion, is little enquired into; and yet these be the things that govern nature principally: How much therefore are we oblig'd to modern industry, that of late hath discover'd this advantageous Artifice of Glasses, and furnish'd our neccessities with such artificial Eys, that now neither the fitness of the Body, nor the smallness of the parts, nor the subtilty of its motion can secure them from our discovery.

(Power, Experimental Philosophy Sigs. C2<sup>r-v</sup>)



The body will have no secrets. At the same time, the emphasis of investigation has shifted. The minute has become significant because, for the first time, it can be discerned. Even Adam, before the Fall endowed with a soul "more quick and perspicacious" than the moderns, was limited by his unaided human sight (Power, Experimental Philosophy Sig. A4<sup>r</sup>). The telescope and the microscope, technological innovation, may even reduce the significance of that first Fall from grace.

Mechanics offers a solution to doubt and uncertainty. But is this true only of mechanical action? For Thomas Willis, it seemed probable that muscular and nervous function may be explicated "according to the Rules, canons, and Laws of a Mechanick" (Willis, Of Musculary Motion p. 35). Though Willis was unwilling to accept the wholly mechanistic, Cartesian, location of the soul itself in the Pineal Gland, he nevertheless sought mechanical explanations for operations which, hitherto, had been described in terms of the various "powers" of the soul. Describing the brain, for example, as "the chief mover in the Animal Machine", Willis, in his The Anatomy of the Brain describes the process of memory and perception in the following terms:

...if the...fluctuation of Spirits is struck against the cortex of the brain, as its utmost banks, it impresses on it the images or character of the sensible object, which when it is afterward reflected or bent back, raises up the memory of the same thing.

(Willis, Anatomy of the Brain, p. 95)

As a modern commentator has noted, Willis understood the "mechanism of perception" as a "sequence of anatomical structures".<sup>58</sup> Within such a set of anatomical functions, there is little room for a conception of memory resembling the elaborate allegorized processes which Spenser described in the House of Alma. In what could almost be described as itself an allegory of technological process, Anamnestes and Eumnestes



have been made redundant, their (highly inefficient) skills replaced by a self-regulating machine which, once set in operation, requires no external supervision.

The body as a machine, investigated with the aid of machines, and described mechanically, may no longer appear to the observer as a structure the complexity of whose operations will confuse or bewilder. In poetry, Donne and Du Bartas had both retired from investigation, frankly acknowledging that the best that could be said of the human frame was that it could always provide instances of human inability to understand the works of nature. For the mechanics, on the other hand, what may not be known and understood today may well reveal itself tomorrow. Anatomy itself, long conceived of as a science in which the individual anatomist commands the attention of the audience as he confronts the cadaver, may also be reduced to a mechanical undertaking. Thus Willis, again, appeals to a progressive conception of science in which scientists, together, work towards commonly stated goals. And if the object pursued seems to evade any easy categorization, adherence to sound mechanical principles must bring, ultimately, success. "I do not believe that I am able to bring to light, or shew anything more certainly than others" Willis writes:

...yet as in mechanical things, when any one would observe the motions of a clock or Engine, he takes the machine itself to pieces to consider the singular artifice, and doth not doubt that he will learn the causes and properties of the Phaenomenon, if not all, at least the chief: in like manner when it is brought before your eyes to behold and consider the structure and parts of a muscle...why is that we should despair to extricate the means or reasons of the motive function, either by truth or what is next to truth?

(Willis, Of Musculary Motion, p. 35)

Like a clever child, the anatomist takes the machine to pieces to satisfy his curiosity, secure in the belief that, if it has been made

in the first instance, it can also be unmade. We might compare this attitude to that expressed by Crooke and his contemporaries, where anatomy was the science which sought to imitate, in reversal, the order by which nature had first constructed the body.

What, in the meantime, has happened to the anatomist's sense of wonder when confronting the spectacle of the body-machine? In part, it is true, it has been replaced by a constant rhetoric of praise for the skill of the great "artificer", "engineer", or "mechanic". So it has not so much vanished as its terms have become displaced. But it is also, perhaps, true that the body has lost some of its mysterious quality. In losing that quality, it has also become less dangerous, less prone to surprising its owner with its rebellious tendency to lapse into sickness and ill-health. The body can still let us down, of course, but for the mechanic this machine which may occasionally run down can hold fewer terrors. That is not to say that death has become less dreadful, only that the body which once was a source of endless anxiety for its ability to conceal within itself, to recall Donne again, rebellious tendencies, has lost (in part) its ability to ambush its owner.

The surprise of sickness and ill-health (for all the commonsense perception that, in the seventeenth century, sickness must have been far less surprising than in the twentieth century) is the informing conceit of many of Donne's sermons. "What kind of issue and transmigration wee shall have out of this world" Donne reasons, cannot be foretold. "Whether prepared or sudden, whether violent or naturall... there is no judgement to bee made upon that" he continues (Sermons X. p. 230). Likewise, it is the rebellious nature of the body which is drawn attention to in the Devotions which were the outcome of his sickness of 1623. Disease in the body establishes an alternative or



rival kingdom to that of the soul. This other kingdom creates its own "Arcana Imperii, Secrets of State, by which it will proceed, and not be found to declare them". Diseases are "secret conspiracies in the state", and, within this conceit, physicians become the examining magistrates of the soul (Devotions p. 52).

The language of rebellion, conspiracy, and treason might suggest that the perception of the body which is, to an extent, abandoned in the later seventeenth century is one in which the body is held to work by its own laws which are, by and large, unknown to the observer. The controlling conceit of microcosm and macrocosm is one which registers only the appearance of things, but cannot aid the prognosis. With the machine, however, the sense of the body possessing its own secret stratagems is removed. We may, still, be surprised by sickness, but the surprise is, in itself, illogical. If the body is a complex machine, we may be surprised at the suddenness with which it can malfunction, but we need not fear that it is concealing a malicious intent from us. Machines, even body-machines, cannot have agency attributed to them.

Robert Boyle, provides evidence of this altered perception of the body's capacity to surprise. The second section of his Occasional Reflections Upon Several Subjects (1665) contains a lengthy discussion entitled "Containing Occasional Reflections Upon the Accidents of an Ague". This piece, which bears a striking resemblance to Donne's Devotions, is (like the Devotions) a series of meditations upon the author's sickness. In Meditation I ("Upon the First Invasion of the Disease") Boyle records that, Donne-like, he was at first surprised by the onset of the disease. But, he soon recalls his mechanical conception of the body to dismiss his own surprise:



...if I had call'd to mind what my curiosity for Dissections has shown me, and remembered how many Bones, and Muscles, and Veins, and Arteries, and Cristles, and Ligaments, and Nerves, and Membranes, and Juices, a humane Body is made up of, I could not have been surprised, that so curious an Engine, that consists of so many pieces, whose Harmony is requisite to Health, and whereof not any is superfluous, nor scarce any insensible, should have some or other of them out of order.

59

The wonder of the machine is that it works as well as it does. But in thus transforming the body into a machine, the scientist is prompted to wonder, self-reflexively, at his own incapacity to apply his mechanical principles to his own predicament. Once he has applied those principles, the body appears as less secretive, and less dangerous.

### Conclusion

As we move from the initial emergence of distrust of the old figurative understanding of the body, through the work of Harvey and his followers, and the attack of the Royal Society on language, towards the adoption of a new metaphor of understanding the body, it appears that a system of reasoning which pertained since the time of Galen and earlier is overthrown in a relatively short space of time. But the overthrow or replacement of one set of metaphors by another had consequences which reached out beyond the anatomy theatre. In the sixteenth and through much of the seventeenth century, the body was the focus of a complex network of associations, a complete discourse which stretched into disparate areas of human activity. Proportion, the art of medicine, artistic theory, architecture, divinity, speculation on the origin or nature of the soul, and political theory, could all have their principles re-examined or interpretated under the anatomist's scalpel. As we have seen, (and as we might expect) poetic discourse

responded to the exploration of the body within this rich and allusive tissue of correspondencies.

But, it is obviously not the case that, at some point in the mid-seventeenth century, almost over-night, a new cultural perception of the body sprang up. It would be absurd, as Kuhn has pointed out, to believe that something as nebulous as a shift in the prevailing language of science can be mapped with anything other than an approximate degree of accuracy. But what can be observed, interestingly, amongst the scientists of the later seventeenth century is a shared belief that what we might term archaic or overtly figurative language in the old style, still has its place in scientific discourse. That place is uncovered whenever the scientist encounters areas which, for all his adherence to mechanical principles, seem so utterly mysterious that the new language of the body is inappropriate to the task of description and observation. We might link this grip of an older system upon the discourse of scientists with Boyle's surprise at his capacity to be surprised by his own body. But old habits, particularly old habits of speech, die hard. Occasionally, when the anatomist is confronted with some aspect of the body which seems to defy all explanation, recourse to an older linguistic pattern may be the only response.

Walter Charleton's Enquiries into Human Nature of 1680 has already been mentioned in terms of its mechanistic element. This passage, though, is also to be found in Charleton's Enquiries, in the course of a description of the brain:

Who can look into the Sanctum Sanctorum of this Temple, the Brain, and therein contemplate the pillars that support it, the arch'd roof that covers and defends it, the fret-work of the ceiling, the double membrane that invests it, the resplendent partition that divides, the



four vaulted cells that drain away impurities, the intricate labyrinths of arteries...and many other parts of the wonderful engine: and not discern the infinite wisdom in the design and construction of them.

(Charleton, Enquiries, Sig. C3<sup>r-v</sup>.)

The conclusion, that the brain is a "wonderful engine" reads almost as though Charleton was recollecting himself as a mechanical scientist, having lost himself within the poetic construction of the body that he has just raised. To term this passage "poetic" has, of course, implications for poetry, but it is difficult not to define this description of the brain in terms appropriate to poetry. Perhaps, too, it is not just an abstract notion of poetry to which we should compare this description, but a particular poem. So Marvell, in the opening stanza of "Upon Appleton House" (published in Miscellaneous Poems in 1681, the year after Charleton's Enquiries appeared), compares the Fairfax family home at Nun Appleton to some ambitious work of a foreign architect:

Who of his great Design in pain  
Did for a Model vault his Brain,  
Whose Columnes should so high be rais'd  
To arch the brows that on them gaz'd. 61

The foreign architect who, under the exertion of creation, transforms his own brain into a vaulted structure which, in turn, "arch" the features of the observer who beholds the result of his endeavours, makes a ghostly reappearance in Charleton's text. Just as the anatomist who considers the structure of the brain's architecture in the Enquiries discerns "infinite wisdom in...design and construction", so the observer of the work of the "Forrain Architect" expresses on his features wonderment at the huge proportions of the design. The two texts (one anatomic, one poetic, one expressing the infinitely



small, the other the infinitely large) ~~elicit~~ the same response from their (imagined) observers.

If the anatomic and the poetic are seen to merge, just as Spenser's and Crooke's construction of the body were comparable seventy and more years earlier, then it is also possible to compare the geographical features of the body in this later account of Charleton's, and an earlier poetic text. Once again, however, the body's geography is only discerned, at this stage, when its features seem to present an impenetrable landscape to the observer. Only when it cannot be imagined as a machine, can the body slide once again into that older network of correspondencies from which the mechanical enterprise had seemed to rescue it:

There are yet, alas! Terrae incognitae in the lesser world, as well as in the greater, the Island of the Brain, the Isthmus of the Spleen, the streights of the Renes and...some other Glandules, the North-East passage of the drink from the Stomach to the Kidnies, and many other things, remain to be farther enquir'd into by us, and perhaps by Posterity also.

(Charleton, Enquiries Sig. E)

In keeping with the optimistic outlook of the mechanics, Charleton foresees a time when the body will, indeed, be charted. It is, I think, significant however that it is to a geographical metaphor that Charleton should resort in order to demonstrate those areas of ignorance which remain to be conquered by anatomy. But there are shadows, too, of an earlier, poetic, display of the body's geography cast over Charleton's summary of what remains unknown:

Whilst my Physitians by their love are growne  
Cosmographers, and I their Mapp, who lie  
Flat on this bed, that by them may be showne  
That this is my South-west discoverie...

(Poems, p. 368)

Donne's contemplation of himself in sickness ("Hymn to God my God, in Sicknesse") imagines the surrounding physicians to be demonstrating their newly-won command of the body's geography, and at the same time reducing the body's curved and shaped contours into a flat map. Paradoxically, in Charleton's account, geographical discovery is a metaphor which illustrates what is not known of the body, whilst in Donne's poem, written we may suppose at least fifty years earlier, the physicians' command of geography illustrates their relative certainty when compared to Donne's Spiritual uncertainty: "Is the Pacifique Sea my home? Or are / The Easterne riches?" So, too, Thirsil's description of the body's geography in The Purple Island presupposes a discovered entity, or, at least, a geography which the skilled traveller may interpret. It is as if the geography of the human frame is a metaphor which has undergone a reversal in its meaning. Where geography once indicated the known, now it signifies that which is still to be charted.<sup>62</sup>

Writing in the 1670's, the Professor of Anatomy at the University of Utrecht, de Diemerbroeck, observed<sup>Y</sup> that anatomy:

...which formerly was undertaken for the sake of Physick, appears now to be the common practice of all men, and as it were the Eye of all solid knowledge whatsoever. 63

But with the confirmed status of this science, an awareness that something may have been lost becomes apparent. What it is that has been lost we can, perhaps, only term the potential strangeness or mystery of the body. Throughout the sixteenth century, and well into the seventeenth century, the body had reserved its power to signify other parts of creation. But, even allowing for Walter Charleton's evocation of the magnificent and impenetrable complexity of the brain's



structure, or his account of the undiscovered geography of the body, by and large that power to signify has vanished by the end of the seventeenth century. The body which was, once, a constantly teasing object has become knowable, and has become, too, a machine which runs according to precise mechanical formulae. In transforming the perception of the body in this way, some writers seem to have been aware that a richly suggestive framework has also been abandoned.

So, in de Diemberbroeck's anatomy, the text discusses the new features of the body which have been revealed through the use of microscopes. Paradoxically, instead of an excited record of new discovery, a description of a hitherto unknown landscape, de Diemberbroeck offers a lament for the old order of the body. An old hierarchy has been overthrown, and what is set up in its place does not, somehow, stretch the imagination. The liver, for example, which once was considered one of the "noble" or "principle" organs has been overthrown. It is now, de Diemberbroeck writes, no more than a "conglomerated or cluster'd glandule". He continues:

In the meantime the condition of the unfortunate Liver is to be lamented; as being that which formerly was call'd the Principal Bowel, and by Galen seated in the highest throne of sanguification, and there has been worship'd for many ages by the common consent of Physick; yet that in these our times it should be torn and depos'd from its throne, and despoil'd of all its sovereignty; nay that it should be said to be dead, and therefore be buried, and only remembered with an ironical Epitaph by Bartholine, and yet contrary to the expectation of all men, a silkworm chang'd into a Butterflie, so metamorphos'd into a pittiful conglomerated Glandule, be beholding to a miserable resurrection in that likeness.

(de Diemberbroeck, Anatomy pp. 79-80)

This is, of course, hyperbolic praise. But if we were hoping to find irony in de Diemberbroeck's lament for the liver, we would, I think, be



disappointed. De Diemerbroeck's work is profoundly conservative, looking back longingly to that old language of the body where the brain can be termed "the Royal Palace of Minerva" (P. 373), or the eyes can be held to "illustrate the microcosm, and display the wonderful works of God" (p. 442). A work such as this indicates, however, that for the contemporaries of Harvey - the mechanics of the later seventeenth century - a profound change in our perception of ourselves had been effected. To term this change "revolutionary" is to run the risk of resorting to cliché, yet, as the Professor of Anatomy at Utrecht suggested, an internal revolution of the body has indeed taken place. Like the unfortunate liver, some time in the mid seventeenth century, the body too had been "despoil'd of all its sovereignty". Poetic discourse was to reflect this shift in perception, and it was not until the advent of Thomas Traherne's visionary delineation of the body's structure, that the prospect of regaining some semblance of the body's former centrality could be entertained.

## Notes

<sup>1</sup> George Hakewill, An Apology or Declaration of the Power and Providence of God in the Government of the World (London, 3rd ed., 1635). For a discussion of Hakewill's work, and the decay in nature debate, see Victor Harris, All Coherence Gone (Chicago: University of Chicago Press, 1949).

<sup>2</sup> The question of the Universities' response to 'New Science' is still a matter of controversy, bound up, as it is, with the larger question of scientific developments in the seventeenth century. On this question see: Dorothy Stimson, "Puritanism and the New Philosophy in Seventeenth Century England," BIHM 3 (1935) 321-334; S. F. Mason, "Science and Religion in Seventeenth Century England," in Charles Webster (ed.), The Intellectual Revolution of the Seventeenth Century, (London: 1974) pp. 197-218; S. F. Mason, "The Scientific Revolution and the Protestant Reformation," in Hugh F. Kearney (ed.), Origins of the Scientific Revolution, (London: Longmans Green & Co. Ltd., 1964); Charles Webster, The Great Instauration: Science Medicine and Reform 1626-1660, (London: Duckworth & Co. Ltd., 1975) especially pp. 116-121; Barbara J. Shapiro, "The Universities and Science in Seventeenth Century England," Journal of British Studies 10 (1971) pp. 47-82; Robert G. Frank, Jr., "Science, Medicine, and the Universities of Early Modern England: Background and Sources," History of Science 11 (1973) 194-269; Nicholas Tyacke, "Science and Religion at Oxford Before the Civil War," in Donald Pennington and Keith Thomas (eds.), Puritans and Revolutionaries: Essays in Seventeenth Century History Presented to Christopher Hill, (Oxford: Clarendon Press, 1978) pp. 73-94.

<sup>3</sup> John Hall, The Advancement of Learning ed. A. K. Croston (Liverpool: Liverpool University Press, 1953) p. 27.

<sup>4</sup> Hall, Advancement p. 38

<sup>5</sup> Culpeper's apology for adding to the volume of anatomical texts available can be found in his translation of Veslingus' The Anatomy of the Body of Man (London, 1653) sigs. A2<sup>r</sup>-v. Webster and others have produced evidence which suggests that, in the period between 1640 and 1660 an enormous expansion in the publication of anatomical texts took place in England. For example, in the period 1630-39 an average of six texts appeared each year. By 1650-59 an average of 18 texts each year were published. See: Webster, Great Instauration pp. 266-67; Robert G. Frank Jr., "The Physician as Virtuoso in Seventeenth-Century England," in Barabara Shapiro and Robert G. Frank Jr., English Scientific Virtuosi in the 16th and 17th Centuries (Los Angeles: William Andrews Clark Memorial Library, 1979) p. 98.

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<sup>6</sup> Louis de Bils, The Copy of a Certain Large Act...Touching the Skill of a Better Way of Anatomy of Mans Body trans. R. B. (London, 1659) sig. A5.

<sup>7</sup> The projected exhibition was by no means a disinterested enquiry into useful knowledge alone. It was to make a profit. De Bils envisaged an elaborate subscription system to finance the project which, he calculated, would require fifty corpses and 20,000 Flemish pounds.

<sup>8</sup> Alexander Read, Manuall of the Anatomy of Man (London, 1634) pp. 323-4.

<sup>9</sup> Such a problem, where the operation of "theory constitutive metaphors" can be discerned, has been investigated in Richard Boyd, "Metaphor and Theory Change: What is 'Metaphor' a Metaphor For?" in Andrew Ortony (ed.), Metaphor and Thought (Cambridge: C.U.P., 1979) p. 361.

<sup>10</sup> Thomas Gibson, The Anatomy of Human Bodies Epitomized (London, 1682) Title-page.

<sup>11</sup> Alexander Ross, The Newe Planet No Planet (London, 1646) p. 99.

<sup>12</sup> Sir Thomas Browne, Selected Writings ed. Sir Geoffrey Keynes (London: Faber and Faber, 1968) p. 248. There is, of course, no more delighted hunter after "metaphors, parables, and allegories" than Browne himself.

<sup>13</sup> Simon Partlicius, A New Method of Physick: Or, A Short View of Paracelsus and Galens Practice; in 3 Treatises, trans. Nicholas Culpeper (London, 1654) p. 248.

<sup>14</sup> Robert Turner, Microcosmos. A Description of the Little World (London, 1654) p. 19.

<sup>15</sup> Nathaniel Wanley, The Wonders of the Little World: Or, A General History of Man (London, 1678) p. 32.

<sup>16</sup> Margaret Cavendish, The Philosophical and Physical Opinions, Written by Her Excellency the Lady Marchioness of Newcastle (London, 1655) p. 101.

<sup>17</sup> See: N. R. Gelbart, "The Intellectual Development of Walter Charleton," Ambix 18 (1971) 149-168; Webster, Great Instauration, p. 277;

Walter Pagel, "Religious and Philosophical Aspects of Van Helmont's Science and Medicine," BHM (Supplement 2) (Baltimore: Johns Hopkins U. P., 1944); Lester S. King, "Robert Boyle as an Amateur Physician," in Charles W. Bodemer and Lester S. King, Medical Investigation in Seventeenth-Century England, papers read at a Clark Library Seminar (Los Angeles: William Andrews Clark Memorial Library, 1968) pp. 29-49; Ladislao Reti, "Van Helmont, Boyle, and the Alkahest," in Ladislao Reti and William C. Gibson, Some Aspects of Seventeenth-Century Medicine and Science, papers read at a Clark Library Seminar (Los Angeles: William Andrews Clark Memorial Library, 1969) pp. 1-19.

<sup>18</sup> Henry Pinnel, Philosophy Reformed and Improved in Four Profound Tracts, (London, 1657) p. 43. Croll was a renowned Paracelsian. On the popularity of his work see Boas, Scientific Renaissance, p. 152.

<sup>19</sup> All citations to Oriatrike are to the 1662 edition: J. B. Van Helmont, Oriatrike or Physicke Refined, trans. John Chandler (London, 1662).

<sup>20</sup> Thomas Winston, Anatomy Lectures at Gresham College, (London, 1659) p. 81, p. 138.

<sup>21</sup> See: Joan Bennett, "An Aspect of the Evolution of Seventeenth Century Prose," RES 17 (1941) pp. 281-297; R. F. Jones, "Science and English Prose Style in the Third Quarter of the Seventeenth Century," PMLA 45 (1930) pp. 977-1009; R. F. Jones, The Seventeenth Century: Studies in the History of English Thought and Literature from Bacon to Pope, (Stanford, Ca.: Stanford U. P., 1951) pp. 10-40; Jonathan Sawday, "The Mint at Segovia: Digby, Hobbes, Charleton, and the Body as a Machine in the Seventeenth Century," Prose Studies 6 (1983) pp. 21-35.

<sup>22</sup> William Harvey, The Movement of the Heart and Blood in Living Creatures, trans. Gweneth Whitteridge (Oxford: Blackwell Scientific Publications, 1976). References to De Motu Cordis are, unless indicated otherwise, to this edition and translation. Whitteridge notes in her introduction (pp. xli-li) the difficulty of translating the eighth chapter of De Motu Cordis.

<sup>23</sup> On the growth of Harvey's ideas on circulation and for a general discussion of De Motu Cordis, see: Jerome J. Bylebyl, "The Growth of Harvey's De Motu Cordis," BHM 47 (1973) pp. 427-70; Keynes, Life of Harvey pp. 175-187; Gweneth Whitteridge, William Harvey and the Circulation of the Blood, (London: Macdonald & Co. Ltd., 1971) especially pp. 114-146; Frank, "The Physician as Virtuoso," pp. 59-114. For a bibliography of Harvey's writings see: Sir Geoffrey Keynes, A Bibliography of the Writings of Dr William Harvey, (Cambridge: C. U. P., rev. ed. 1953).



<sup>24</sup> For a discussion of the possible political implications of the changes in Harvey's text between 1628 and 1653 see the exchange between Christopher Hill and Gweneth Whitteridge in Past and Present (April 1964 - July 1965). The exchange is published in Charles Webster (ed.), The Intellectual Revolution of the Seventeenth Century, (London: R.K.P., 1974).

<sup>25</sup> Thomas Hobbes, A Briefe of the Art of Rhetorique (London, 1637) Bk. III ch. 10.

<sup>26</sup> Thomas Hobbes, The English Works, ed. Sir William Molesworth 11 vols. (London, 1839-1845).

<sup>27</sup> Joseph Glanvill, The Vanity of Dogmatizing (London, 1661) p. 160.

<sup>28</sup> Thomas Sprat, The History of the Royal Society (1667) ed. Jackson I. Cope and Harold Whitmore Jones (St. Louis, Missouri: Washington University Studies, 1958) p. 111.

<sup>29</sup> Sprat, p. 113.

<sup>30</sup> Sprat, p. 42.

<sup>31</sup> George Steiner, After Babel: Aspects of Language and Translation (London: O.U.P., 1975) p. 70.

<sup>32</sup> John Milton, Paradise Lost ed. Alistair Fowler (Essex: Longman, 1971).

<sup>33</sup> John Wilkins, An Essay Towards a Real Character, and a Philosophical Language (London, 1668) pp. 17-18.

<sup>34</sup> Abraham Cowley, Works (London, 1681) pp. 38-42.

<sup>35</sup> Joseph Glanvill, Essay III "Modern Improvements in Useful Knowledge" in Essays (London, 1676) sig. 04<sup>r</sup>. On Glanvill's attempts to purify his own style see: Stephen Medcalfe, Joseph Glanvill, The Vanity of Dogmatizing: The Three Versions (Sussex: Harvester Press, 1970). Medcalfe's view has been challenged in Brian Vickers (ed.), English Science: Bacon to Newton (Cambridge: C.U.P., 1987) pp. 212-217.

<sup>36</sup> This process of exchange is described, in general terms by T. S. Kuhn. See: T. S. Kuhn, "Metaphor in Science" in Ortony, Metaphor and Thought p. 416. I have tried to show elsewhere (Sawday, The Mint at Segovia, pp. 25-33) how this process can be observed in the discourse of two seventeenth-century scientists: Sir Kenelm Digby and Walter Charleton.



<sup>37</sup> Charles Webster, "William Harvey and the Crisis of Medicine in Jacobean England," in Webster (ed.), William Harvey and His Age: The Professional and Social Context for the Discovery of Circulation, The Henry E. Sigerist Supplements to The Bulletin of the History of Medicine, new series, 2, (Baltimore and London: The Johns Hopkins U.P., 1979) pp. 21-2. Harvey's debt to mechanical systems has been questioned, however, in Rudolph E. Siegel, "Why Galen and Harvey did not Compare the Heart to a Water Pump," American Journal of Cardiology 20 (1967) pp. 117-121.

<sup>38</sup> On the problem of dating the Prelectiones see William Harvey, Lectures on the Whole of Anatomy, trans. and ed. by C. D. O'Malley, F. N. L. Poynter, K. F. Russell (Berkeley and Los Angeles: U. of California Press, 1961) pp. 7-11; Whitteridge, William Harvey pp. 89-103.

<sup>39</sup> Whitteridge, William Harvey, p. 170; Harvey, Lectures, ed. O'Malley et. al. p. 152 (note).

<sup>40</sup> William Harvey, The Anatomical Lectures: Prelectiones Anatomie Universalis, ed. and trans. Gweneth Whitteridge (Edinburgh and London: E. & S. Livingstone Ltd., 1964) p. 273.

<sup>41</sup> Francis Glisson, Anatomical Lectures Delivered Before the College of Physicians, BL MS Sloane 3306 f. 131, cited by Whitteridge, William Harvey, p. 171-2. The fire-engine, as Whitteridge notes, first came into use in London during the first quarter of the seventeenth century. A description of such a machine can be found in John Bate, The Mysteries of Nature and Art (London, 1634) p. 11 and 18.

<sup>42</sup> Glanvill, Vanity of Dogmatizing p. 43.

<sup>43</sup> William Shakespeare, King John ed. E. A. J. Honigman (London: Methuen and Co., 1967) pp. 33-4.

<sup>44</sup> Paul Barbette, The Chirurgical and Anatomical Works, trans. Anon. (London, 1672) p. 206.

<sup>45</sup> For a critical discussion of the biological implications of "mechanism" see: Oswei Temkin, The Double Face of Janus and Other Essays in the History of Medicine (Baltimore and London: The Johns Hopkins U. P., 1977) where Temkin makes the important point that bodies and machines are not comparable insofar as the body does not conform to a mechanistic expression of the 1st Law of Thermodynamics: that a Perpetuum Mobile cannot be constructed (p. 279). The question of whether the "mechanical impulse" at work in these seventeenth-century texts is mechanical in anything other than a superficial sense

is raised in E. J. Dijksterhuis, The Mechanization of the World Picture trans. C. Dikshoorn (Oxford: Clarendon Press, 1961) p. 496. On the mechanical philosophy in the seventeenth-century see: Michael Hunter, Science and Society in Restoration England (Cambridge: C.U.P., 1981) pp. 173-4.

<sup>46</sup> Samuel Collins, A Systeme of Anatomy; Treating of the Body of Man, Beasts, Birds, Fish, Insects, and Plants, 2 vols. (London, 1685).

<sup>47</sup> For an example of how political beliefs can emerge in scientific discourse in the most unlikely places, see Digby's description of the growth of the bean which cracks open when it sprouts indicating that "inferiour members which should study nothing but obedience, have gotten the power into their own hands". Sir Kenelm Digby, Discourse Concerning the Vegetation of Plants (London, 1661) pp. 10-11.

<sup>48</sup> See Descartes' letter to Mersenne (20 February 1639) in René Descartes, Philosophical Letters ed. and trans. Anthony Kenny (Oxford: Basil Blackwell, 1981) pp. 63-4. The French text can be found in Charles Adam and Gérard Milhaud (eds.), Descartes. Correspondance publiée avec une introduction et des notes, 8 vols. (Paris: Alcan, PUF, 1936-63) III. p. 195.

<sup>49</sup> Thus Hobbes, in Leviathan (Pt. II ch. 22) terms the various component parts of the commonwealth "systemes". See also, Webster, Great Instauration, p. 447.

<sup>50</sup> Similarly, Walter Charleton, in his Three Anatomic Lectures (London, 1683) p. 37 argues that the anatomist should "...chiefly consider number, weight, and measure, i.e. the MECHANISM" of the body. In echoing the biblical text, and in following the Baconian method, Charleton is also following the Harveian methodology of precise measurement. See: F. G. Kilgour, "Harvey's Use of Quantitative Method," Yale Journal of Biology and Medicine 26 (1954) pp. 410-421.

<sup>51</sup> Webster, Great Instauration, p. 278.

<sup>52</sup> Walter Charleton, Enquiries Into Human Nature in VI Anatomic Praelections, (London, 1680) sig. B<sup>r</sup>.

<sup>53</sup> Thomas Willis, Cerebri Anatome Nervorumque descriptio et usus (London, 1664) in Willis' The Remaining Medical Works trans. Samuel Pordage (London, 1681) pp. 51-2. All citations are to this edition.

<sup>54</sup> Robert Hooke, Micrographia, (London, 1665) p. 171. Similarly, Walter Charleton concluded of the heart that "...it is an engine never to be imitated by human art." (Three Anatomic Lectures, p. 73).



55 Abraham Cowley, Proposition for the Advancement of Experimental Philosophy, (London, 1661) sigs. A4<sup>v</sup>-r.

56 Henry Power, Experimental Philosophy in Three Books (London, 1664) sig. C3.

57 See John M. Steadman, "Beyond Hercules: Bacon and the Scientist as Hero," Studies in the Literary Imagination 4 (1971) pp. 3-47.

58 R. K. French, Robert Whytt, The Soul, and Medicine, Publications of the Wellcome Institute for the History of Medicine, n. s. 17 (London: The Wellcome Institute, 1969) p. 130.

59 Robert Boyle, Occasional Reflections Upon Several Subjects, (London, 1665) sigs. N6<sup>v</sup>-N7. John Dillenberger, commenting upon Boyle's use of the clock as a "symbol" of the world, suggests that this "metaphor...presented a picture of the world which stood against chance and randomness. It affirmed that the world was not capricious." John Dillenberger, Protestant Thought and Natural Science, (London: Collins, 1961) p. 115.

60 T. S. Kuhn, The Structure of Scientific Revolutions, (Chicago: University of Chicago Press, 1962 rpt. 1964). See in particular chs. 6 and 10.

61 Andrew Marvell, Poems and Letters, ed. H. M. Margoliouth rev. Pierre Legouis and E. E. Duncan-Jones, 2 vols. (Oxford: Clarendon Press, 1971) I. p. 62.

62 Similarly, Cowley imagines the geography of the body to signify ignorance: "There is yet many a Terra Incognita behind to exercise our diligence, and let us exercise it never so much, we shall leave work enough for our posterity." (Experimental Philosophy, sig. A5). Glanvill, too, resorts to geography when he uncovers ignorance of the body: "...its constitution and inward frame is an America, a yet undiscovered Region..." (Vanity of Dogmatizing, p. 42). Compare this to Donne's famous cry of triumphal discovery in Elegie XIX ("Going to Bed"): "O my America! My new-found-land" (Poems, p. 120). For Donne it is when the woman's body is known that it is revealed as geographic territory.

63 Isbrand de Diemerbroek, Anatome Corporis Humani (Utrecht, 1672) trans. William Salmon and published as The Anatomy of Human Bodies (London, 1689) p. 1. Salmon's translation was made from the version published in de Diemerbroek's Opera Omnia, Anatomia et Medica (Utrecht, 1685).



Chapter Six: Exploring the Poetic Body:  
Poetry After Harvey

## Introduction

Money, Hobbes had observed in Leviathan, is like blood. In the commonwealth money circulates "nourishing as it passeth every part", in much the same way that:

natural blood is in the like manner made of the fruits of the earth; and circulating nourisheth by the way every member of the body of man.

(Works III. p. 238)

The anatomist Walter Charleton in his Three Anatomic Lectures of 1683 also made the connexion between the circulation of money in the economy and the movement of blood in the body. Money, he observed:

...is the blood of all states, as well monarchies as republicks, for the support of the government: so the office and work of the heart is to stamp the character of vitality upon the mass of the blood, for the maintenance of life in the whole animal oeconomy.

(Lectures p. 72)

The heart, in Charleton's image, works in a machine-like fashion "stamping" the blood as it passes, the basis of his analogy being the action of a mint. The free flow of money, the development and exchange of commerce, is fundamental to the health of the state, whatever form of government is in operation. At the centre of these images lies, of course, the idea of circulation. For Hobbes, money circulates via the agencies of revenue collection and disbursement, a process which may be compared to the circulatory process discovered in the body where:

...veins receiving the blood from the several parts of the body, carry it to the heart; where being made vital the heart by the arteries sends it out again, to enliven and enable for motion all the members of the same.

(Works III. p. 239)

A blockage in the passage of blood, or in the movement of trade, may have disastrous consequences. Dryden, in his celebration of the events of 1666 Annus Mirabilis (1667), begins the poem by detailing just such a blockage in the circulatory process:

Trade, which like blood should circularly flow,  
 Stop'd in their channels, found its freedom lost  
 Thither the wealth of all the world did go,  
 And seem'd but shipwrecked on so base a Coast.        1

The metaphor is consistent with the Hobbesian idea of blood and money performing a similar operation. Both circulate, both in their circulation ensure the health of the complete organism. Fittingly, the end of Annus Mirabilis imagines the blockage of this most vital of processes has been removed:

Thus to the Eastern wealth through storms we go;  
 But now, the Cape once doubled, fear no more:  
 A constant Trade-wind will securely blow,  
 And gently lay us on the Spicy shore.        2

What Dryden in his account of the poem terms "this most just and necessary war"<sup>3</sup> is brought to a conclusion, poetically if not historically, in which free movement is assured.

It is not only trade which imitates the circular motions of the blood. Sir John Denham's sceptical survey of human knowledge in poetic form, gathered under the Baconian title "The Progress of Learning" (1668) closes with an image of circulation, but the circulation of ideas; "Our knowledge, like our blood, must circulate":

When like a bridegroom from the East the sun  
 Sets forth, he thither whence he came doth run;  
 Into earth's spongy veins the ocean sinks  
 Those rivers to replenish which he drinks:  
 So learning which from reason's fountain springs  
 Back to the source some secret channel brings.        4



These images of circulation seem to suggest that the actual products of scientific enquiry, in this case the discovery of circulation, are safely assimilated into the practice of writing in the period. So, Denham's image of the progress of learning posits a circulatory process which, though it may (as in the case of Harvey) owe much to Aristotle, also accurately reflects the formation of those institutions of learning which could encourage the scientist in the belief that his undertaking had become a shared enquiry, conducted upon shared principles, into the hitherto mysterious qualities of nature.<sup>5</sup>

We have seen, however, that in the exploration of the human body by Harvey and his contemporaries, a common language with which to describe the body is only achieved with considerable difficulty. Indeed, it is possible to see the body as the site of a confrontation not only between the scientist and "nature" but as the site of a linguistic struggle between competing terms with which to describe the body. The citations from Leviathan, Charleton's Anatomic Lectures, Dryden's Annus Mirabilis, and Denham's "The Progress of Learning" might suggest that these common standards, insofar as they appear in the form of agreed metaphors, have been established.

In the course of this chapter, without in any way disrupting the claim that the natural philosopher of the seventeenth-century saw a community of scientific endeavour as the goal to which his energies should be aimed, I shall explore the effects of this hoped-for consensus insofar as it emerges in poetic texts which take the body or the exploration of the body by anatomists as their subject matter. In exploring this theme, I hope to suggest that the picture which emerges is not only confused, but in its confusion it mirrors the fragmentation which has taken place between the scientist and the poet.

I shall argue that the struggle for an agreed set of discursive rules on the part of the scientist, a struggle which is the context for the emergence of the new "mechanical" understanding of nature, has the effect of throwing the poet into a state of doubt and confusion.

This doubt resolves itself into two mutually exclusive attitudes towards the human body on the part of poetry. We have seen how a poet such as Donne could locate within the body evidence of general doubt in the world at large, or how Phineas Fletcher could imagine the body as the scene where a religious and philosophical struggle could be enacted. But the doubt expressed in the texts which will be discussed in this chapter is, perhaps, of a slightly different order. It may be described in the following terms. Is the body to be understood as the setting for a triumphal vindication of the methodology of experimental philosophy, or is it to be seen as transformed by the poet into a mysterious structure which will inevitably defeat the dissecting mind of the scientist? At issue, therefore, are two quite opposed notions of how the body is to be poeticised. It may appear as secretive, mysterious, and hence in the traditional light in which Spenser's knights understood it. But it may, conversely, be seen as little more than the "conglomerated Glandule" which de Diemerbroeck's Anatomy of Human Bodies concluded was the best that could be said of what once were structures worthy of the most involved articulation of metaphor.

#### "Bodies by Art Fashioned"

In Abraham Cowley's ode "To Mr. Hobbes", published in the Pindarique Odes of 1656, an opposition is established between the notion of a living and a dead "body". This "body" denotes the vast mass of former learning, perceived of as lifeless until endowed with



a living principle through the operation of Hobbes' intellect:

Vast Bodies of Philosophie  
 I oft have seen and read,  
 But all are Bodies dead,  
 Or Bodies by Art fashioned;  
 I never yet the Living Soul could see,  
 But in thy Books and Thee.

(Poems, p. 26)

6

As David Trotter has observed<sup>Y</sup>, this ode, itself employing "a code or procedure established by the writing of Leviathan", locates Hobbes and his writings within a mythology of scientific progress.<sup>7</sup> Hobbes appears as the saviour of learning from its degenerate state, a colossus of intellectual achievement whose gigantic intellect is reflected in a mental capacity architecturally evoked:

Just, as in Nature thy Proportions be,  
 As full of Concord their Varieties,  
 As firm the parts upon their Centre rest,  
 And all so Solid are that they at least  
 As much as Nature, Emptiness detest.

(Poems, p. 26)

Intellectual stature is reflected, in the poem, through images of tremendous size. The very word "vast", which opens the poem, reappears to describe the "vast Ocean" over which Hobbes has sailed, a new Columbus to discover a "learn'd America" (stanza 4), and is found again to describe the "vast...store" of eloquence which Hobbes is able to summon in his work. Images of solidity, too, cluster in the poem: Hobbes' reason is described as "solid", a shield "too strong to take a mark from any mortal dart" (stanza 5). Language itself ("the Wardrobe of rich Eloquence" - an epithet which Cowley would find difficult to own after he had fully assimilated the linguistic theories of the Royal Society) is hardly able to match the demands made upon it by the



scope of the Hobbesian "body", and is almost unable to "cloath" the "Limbs" of "Gigantique Sence" (stanza 5). Hobbes, the intellectual voyager, heroic discoverer of new horizons of the mind, rears a new empire of learning to replace that of "the mighty Stagirite" - Aristotle - now sunk into a little-lamented decline.

The poem appears, then, to be a celebration of dynamic intellectual change. Yet, it is possible also to discern a rather more doubtful note entering into the closing moments of the ode. It is perhaps this shift which has led one modern commentator to discover evidence of failure in the ode's restless attempts at rising to its heroic theme.<sup>8</sup> For Hobbes, and Hobbes's works, have to contend with a greater force - time and age - which are heroically subdued:

Nor can the Snow which now cold Age does shed  
                                 Upon thy reverend Head,  
 Quench or allay the noble Fires within,  
   (Poems, pp. 27-8)

So, in the final moments of the poem we learn that Hobbes is old, even if he enjoys the "Natural Heat" of maturity and not the "Feaver" of either youth or age. By thus endowing the body with contrary uncertainties (the images proceed through heat, ~~fe~~ver, frosts, fire, snow, and flame), the poem is left in a similarly unresolved fashion. That uncertainty is underlined when we remember how the poem has passed, as Trotter has noted, from a consideration of the "logical coherence of Hobbes's thought" to evocation of "Hobbes the man".<sup>9</sup> The opposition between living and dead "bodies" of knowledge at the outset of the poem is, then, reflected in this final stanza where the philosophic body gives precedence to the living body of the subject.

Doubt, of an artistic rather than philosophic kind, has become

evident in the poem. Hobbes's colonization of a new mental terrain confronts an alternative expression of human existence, for which his own body's contrary states, and its problematic relationship to the passage of time, is the evidence. Heroic discovery is qualified by the knowledge that the hero is only, after all, mortal, even though his works seem to transcend such limitations. Artistic doubt, expressed through an anxiety as to whether the poet's task is simply to celebrate scientific achievement, or to indicate the limits of scientific progress, we shall find displayed in other poems by Cowley. For the moment, though, we turn to an altogether different evocation of the body which, published some eighteen years before Cowley's ode on Hobbes, seems, nevertheless, to echo from a different century.

This poem, the work of Thomas Randolph, appeared in a collection of Randolph's writing in 1638. The poem carries the unwieldy title "On the Inestimable Content he enjoys with the Muses; to those of his friends who dehort him from Poetry". Here, Horatian retirement is explored via the conceit of the body as a dwelling-place where the poet can retire to comfortable domesticity: "I.../ Have in myself a Household government" (Poems, p. 2).<sup>10</sup> The notion of the self providing the object of secure retirement from the world induces one to think of the poem as a form of internalized "To Penshurst". The body, rather than bricks and mortar, is a place of sanctuary, but also it is revealed as a complete domestic economy, a microcosm of the wider political state. Comfort and security are imagined in the retreat into a "building" which is the body, transformed through allegory:

When I goe forth my eyes too ushers are,  
And dutifully walke before me bare.  
My legs run footmen by me. Goe or stand  
My ready Armes waite close on either hand.



My lipps are porters to the dangerous dore:  
 And either Eare a trusty Auditor...  
 The charge of all my cellar, Thirst, is thine;  
 Thou Butler art and yeoman of my wine.  
Stomacke the cooke, whose dishes best delight,  
 Because their only sauce is Appetite.

(Poems, p. 2)

The body is transformed through this play of allegory into a collection of autonomous individuals. In order to imagine the body as a sanctuary, we must first disjoint the body. Amidst this collection of running legs, and waiting arms, the poet lives in an internal world, governing the whole in benevolent despotism:

And all affections else are taught t'obey  
 Like subjects, not like favourites to sway.  
 This is my manor house, and men shall see  
 I live here Maister of my family.

(Poems, p. 3)

To say of this poem that it is a logical development from Jonson's more famous evocation of comfort in "To Penshurst" may seem to verge on the absurd, yet Randolph's poem of retirement does echo Jonson's earlier text. That echo is not merely a linguistic one, although lines such as Randolph's "Not of your household stuffe so proudly boast, / Compos'd of curiosity and cost" (Poems, p. 6) might well call into mind Jonson's "nor can'st boast a row / Of polish'd pillars, or a roof of gold;".<sup>11</sup> The comparison may be thought of, however, as running deeper than linguistic device. In Jonson's poem, the virtues that are celebrated are self-contained and internal to Penshurst itself. The house and its grounds contain all that is required, whilst it is also separate from the outside world which contains other houses, less happy than Penshurst. Randolph's poem may be thought of within this context, the development being that it dramatizes a retreat deeper than retirement into the Kent countryside. As such, Randolph's discovery is a dis-



covery of the imagination which is akin to that journey into the self that Marvell was to make. The world, in "Upon Appleton House" is "a rude heap together hurl'd" possessing only the virtue of diversity. Diversity can be found, however, in another, smaller world:

Your lesser World contains the same.  
But in more decent order tame;  
You heaven's Center, Nature's Lap.  
And Paradise's only Map..

(Poems, I. p. 86)

The lesser world is, of course, the enclosed world of the garden of the Fairfax estate. Yet it is also an ordered internalized world expressing the microcosm of the human individual. Within such a conceit man is indeed "heaven's Center" and the only map of paradise.

Randolph's curious, quasi-anatomical poem seems to place itself within that wider genre of seventeenth-century poetry which has become known as country-house poetry. It expresses, in physical terms, what all such poems might be understood as expressing: a withdrawal from the external into the internal world which is self-contained and (until the world intrudes) undisturbed.<sup>12</sup> Imagined thus, the body still preserves the standard of proportion, order, and sober government which Spenser's house of Alma was once designed to display. Similar notions of the body as a standard of proportion and order we have already encountered in the work of the earlier anatomists. Standards such as these, however, are less noticeable in the writings of anatomists after Harvey. It is not that they have disappeared altogether, but rather that the anatomist no longer feels the need to offer such justifications for opening the human frame. The body understood through poetry, and the body understood through science begin to appear as quite separate entities.

Such a separation is made in the imaginative writing of Margaret Cavendish, whose philosophical works were referred to in the previous chapter. Two years before Cavendish published her Philosophical and Physical Opinions, she published a volume entitled Poems and Fancies (1653). The volume contains a preface, addressed "To natural Philosophers", which sets out her understanding of the competing claims of scientific and poetic discourse:

I cannot say, I have not heard of Atomes, and Figures, and Motion, and Matter; but not thoroughly reason'd on: but if I do erre, it is no great matter; for my Discourse of them is not to be accounted authentick...and the reason why I write... in verse, is because I thought Errours might better passe there than in prose; since poets write most Fiction, and Fiction is not given for Truth, but pastime...

Poetry, here, is to be thought of as a form of language which disguises itself. To charge it with error is to misunderstand its devices, which serve to evade "truth", the preferred vehicle of which is prose. In appealing thus to a standard of "truth" for which there is an appropriate form of discourse, Cavendish is following the Hobbesian separation of discourse into its appropriate orders, each of which has a style of its own. Yet, Cavendish's own poems can be thought of as a violation of that ordering of discourse which Hobbes had recommended. Thus, many of the poems gathered into Poems and Fancies on topics such as "The Weight of Atomes" or "What Atomes make change" are supported by what amounts to a prose transcription of the verse, printed below each poem. Scientific and poetic discourse share the printed page, but the alliance is an uneasy one, with the poetic conceit, not infrequently, acting against the scientific "truth" which the poem sets out to demonstrate.

An example of the metaphorical element within the poem acting



against what the poem sets out to display is found in the poem entitled "The Motion of the Blood":

Some by industry of learning found,  
That all the blood like to the sea runs round:  
From two great Arteries the blood it runs  
Through all the veines, to the same backe comes.  
The muscles like the Tides do ebb, and flow,  
According as the severall spirits go.

(Poems, p. 42)

To say of this poem (of which this is the opening) that it hardly needs a prose transcription is to miss the point that it displays how a metaphor has, indeed, led the poet into error. If the poem sets out to demonstrate the circular motion of the blood, then the Aristotelean use of correspondence militates against an understanding of circularity. The blood moves around the body, and in this may well imitate the great circulation of water in the macrocosm, but the distinguishing feature of Harvey's notion of circulation is its 'one-way' element. It is earlier theories of circulation which describe the blood as moving like the sea.

The most surprising transformation of the body in Cavendish's collection is not to be found amongst the numerous "similizing" poems (e.g. "Similizing the Braine to a Garden") but in her sustained allegory of government entitled "The Animal Parliament". The animal parliament is a meeting of the various components of the single individual, called by the soul "in his animall kingdom, which Parliament consisteth of three parts, the Soul, the body, and the thoughts" (Poems, p. 199). The parliament has met to order the body politic, but in particular to "quench the rebellion of superfluous words" (Poems, p. 200). Is this, then, a proto-Royal Society, concerned with the reformation of language? The answer is probably no, since what is actually discussed



in the parliament is the threat to order which is presented by rebellious members of the organism. It is, then, a re-working of that familiar conceit that was encountered in the two anatomical epics of the 1630's and 1640's respectively: Fletcher's Purple Island, and Beaumont's Psyche.

To term Margaret Cavendish's imaginative account of the body an anatomical allegory is, perhaps, somewhat misleading. It is not the case that "The Animall Parliament" seeks to present an allegory of anatomical function or structure, neither does it attempt (as Fletcher's poem attempted) to convey an image of the body which conforms to scientific account. Rather, "The Animall Parliament" is an allegory of government (specifically, of *bureaucratic* government) which is set within the body.

Poetry which serves a didactic purpose, which sets out to teach or instruct the reader in some area of knowledge, was a phenomena that was encountered in the work of earlier 'anatomic' poets such as Norden, Hagthorpe, and Davies of Hereford. In chapter three I suggested that it was within a context delineated by an understanding of such works that Fletcher's Purple Island might be understood. Margaret Cavendish's poetry might also be thought of as emerging from the belief that poetry can instruct as well as delight, even if, apologetically, she claims that her purpose was no more than to delight the reader's "fancy". This impulse, to catalogue in poetry the natural world, did not disappear after Harvey, even if there is no poet who quite approaches the length and complexity of Davies of Hereford's encyclopaedic works. We saw that these verse catalogues present a fusion of science and scripture, and represent an attempt to bring to a fairly unsophisticated audience something of the discoveries of modern science, but

harmonized with received scriptural interpretation. In the later period, Nicholas Billingsley's Kosmobrephia of 1658 represents a not dissimilar impulse at work.

Billingsley's poem, though published in 1658, was probably written a few years before that date, perhaps in the 1640's.<sup>14</sup> Kosmobrephia is a divine poem in the hexamaeric tradition. It surveys "the infancie of the world" (according to the title-page) but at the same time "digesting into a little room what I found scattered here and there in diverse authors...which might be advantageous to my memory in the retaining of the several species of things created".<sup>15</sup> The poem may thus be thought of as a record of the act of creation, and a representation or catalogue of the created world. Divided into eight sections, each detailing some part of creation (e.g. section II - "Creation of Trees, Fruits and Plants", section V - "Creation of Creatures in the Waters") the passage which concerns us is that to do with the creation of man, described in section VIII.

Man, the poem proclaims in familiar terms, is a microcosm of creation, but one whose outward features correspond to the features of a building. Having described these features in the usual terms, the poem proceeds to explore the inner structure:

Mans outward parts are shown, I'le now begin  
To rip him up, and see what is within.

(Sig. D8<sup>v</sup>)

The poet has adopted the (again familiar) pose of the poet-anatomist whose poetry will display for the reader's attention the internal secrets of the human form. Echoing Du Bartas, the poem sets out to explore the sacred anatomy of the human form, where each feature is



understood as itself constituting a sign of the divine scope of the body. The body is an ordered economy of functions, a model of stable government:

She, she the conduit of our blood conveys  
Her crimson bounty through clear blent-wayes.  
She mitigates the coldness of the Spleen,  
And in the body regulates as Queen;  
If not by her, whence do our pulses beat,  
From her we do derive our nat'ral heat.

(Sig. E<sup>r</sup>)

Thus Billingsley's description of the heart. What is of interest, though, in a passage such as this is the sense of the mechanistic understanding of the body's functions appearing within such an anachronistic account. The heart, here, is as a regulating mechanism, and yet it is also the "Queen" of the ordered body-state.

That is not to say that Kosmobrephia represents a covert mechanistic impulse at work. Rather, it might be true to say of the poem that it is one more of those attempts to harmonize science with scripture and in so doing it reflects (in a fairly passive fashion) the changes in scientific discourse which were in motion at the time of the text's composition. Samuel Pordage's enormous sacred poem Mundorum Explicatio (330 pages of closely printed rhyming couplets in the 1661 edition) is in a similar vein. Pordage, the translator of Willis' Remaining Medical Works of 1681 and De Anima Brutorum (also by Willis), was to attempt to poeticize the human body more than once. Prefaced to Pordage's translation of Willis' Works is a celebratory poem entitled "On the Authors Medical-Philosophical Discourses", itself the work of the translator. This poem is not so much an eulogy to Thomas Willis (as the title might suggest) as it is a celebration of seventeenth-century science in general. The ruling conceit of the



poem is that subjects which had formerly been undiscovered - "hid to former ages and unknown" - are now made transparent through the endeavours of scientists such as Willis:

All things lye open now: he did not know  
 So much, to whom Prometheus did bestow  
 His stollen fires: We now every part  
 Of the whole Earth compass about with Art. 16

This triumphal response to scientific discovery is quite different to what can be found in Pordage's sacred poem Mundorum Explicatio, which sets out to delineate the "mysteries of the External, Internal, and Eternal worlds".<sup>17</sup> As such, the body is opened not so that mystery can be dispelled, but if anything so that its mysterious quality can be affirmed. Even though the poem encourages anatomical investigation - "Let therefore some anatomize him, and / His Body's inner parts well understand" - this encouragement is devoted not so much towards understanding as it is designed to reveal the sacred dimensions of the human frame. The body is catalogued in conventional terms before concluding that:

...whosoe'r contemplates Man, may see  
 The matchlesse Wisdom of Heav'n's Majesty.  
 (P. 24)

The distinction suggested here is perhaps an important one. In Pordage's sacred anatomization, the body is a subject for contemplation rather than investigation, even if the full fruits of contemplation are only attained after investigation has revealed the complexity of the divinely-shaped organism. At the same time the mechanical understanding of the body is entirely absent, not that mechanics per se are unrepresented in the poem. But rather than have the potential for wonder or mystery disrupted by mechanical understanding

of form and function, mechanics are introduced as products of human ingenuity, itself part of the creational design:

Mechanics, and the Mathematics too,  
And almost all things in the World, do shew  
The mighty wonders of Man's pregnant Brain:

(P. 24)

Pordage's two poems, unequal as they are in scope and design, show two quite distinct discourses at work. In one the body appears as the repository of a system of divine signification, each feature revealing some particle of the creator's intent. In the other, later, text the body is a field of knowledge over which rational science has marched, securing its features and integrating it into the overall project of scientific endeavour.

Before examining rather more closely other poetic images of scientific discovery, there remains one poem of the period quite different from those discussed so far. That poem is Henry Vaughan's "The Charnell House", first published in Vaughan's collection of poems and translations Olor Iscanus (1651). "The Charnel House", written possibly prior to 1647 when the collection was withdrawn (for political reasons, it has been speculated) is the second of Vaughan's poems in the volume.<sup>18</sup> This positioning may not be entirely fortuitous since, in the words of one commentator, the "open and fresh atmosphere" of the preceding poem ("To the River Isca") is in immediate contrast to the "dank, constrained, and dark repository for the bones of the dead" represented in "The Charnel House", so that "rural innocence" is implicitly compared to "urban decay".<sup>19</sup>

It is within a more contemplative vein that "The Charnel House" begins to display an affinity not with the 'anatomical' poems which have been discussed hitherto, but with the intellectual circumstances



out of which grew the moralizing anatomy theatre such as Leiden, or the instructive illustrations which are a feature of Vesalius's work. The Leiden anatomy theatre, it will be recalled, sought to teach a lesson in the contemplation of mortality, just as the illustrations to De Humani Corporis present images of death which offer more than the simple facts of human anatomy. The narrator of "The Charnell House" records the experience of contemplating such images, an experience which is found to be profoundly disturbing.

To mention both anatomy theatre and anatomy text is to bring into play an ambiguity which the poem itself seeks to encourage, for it is a punning conceit informing the poem that the narrator is looking within a building in much the same way that he might read a book. Vaughan's building contains the detritus of death, but as a book its contents become the illustrations and the narrator becomes the solitary (and appalled) reader:

Blesse me! what dampes are here? how stiffe an aire?  
Kelder of mists, a second Fiats care,  
 Frontspeece o'th'grave and darkness, a Display  
 Of ruin'd man, and the disease of day;  
 Leane, bloudlesse shamble, where I can descrie  
 Fragments of men, Rags of Anatomie;  
 Corruptions ward-robe, the transplative bed  
 Of mankind, and th'Exchequer of the dead.

(Works, p. 41)

20

"Frontspeece" in its architectural signification may denote the decorated entrance to a building (OED), but it also may suggest the decorated title-page of a book. The two, book and building, are of course not unrelated, given the almost universal Renaissance practice of adapting architectural themes to elaborate title-pages.<sup>21</sup> In the context of "The Charnell House" the double-signification of the word is important, since only when we realise that the narrator is describing both a



building and the contents of a book can we make sense of the closing remarks:

Day leaves me in a double night, and I  
Must bid farewell to my sad library.  
Yet with these notes.

(Works, p. 42)

The day closes, and the darkness of the charnel house and night encloses the narrator who in turn closes the book. The visit (or the contemplation of the images) has not been without profit, however. The narrator takes from the "sad library" his "notes" which constitute the poem itself.

One account of the text suggests that the narrator's feelings are laced with "fear" which results in "nervous laughter".<sup>22</sup> But there seems little to support such a note of hysteria within the poem. From the initial moment of horror recorded in the poem's opening phrases, the narrator rapidly recovers his balance, to provide us not with a record of what the charnel house contains (dimly perceived fragments, perhaps voyeuristically sought for by the narrator's eye), but with a record of what he feels in contemplating the images:

How thou arrests my sense? how with the sight  
My Winter'd blood grows stiffe to all delight?  
Torpedo to the Eye! whose least glance can  
Freeze our wild lusts, and rescue head-long man;  
Eloquent silence! able to Immure  
An Atheists thoughts, and blast an Epicure.  
Were I a Lucian, Nature in this dresse  
Would make me wish a Saviour, and confesse.

(Works, p. 41)

As a record of the narrator's feelings, shock has given way to self-examination. From an individual response to the contents of the charnel house, the narrator soon passes into a general contemplation of mortality, which addresses itself directly to the fragmented bodies

which have met his eye:

Where are your shoreless thoughts, vast tenter'd hope,  
Ambitious dreams, Aymes of an Endless scope,  
Whose stretch'd Excesse runs on a string too high  
And on the rack of self-extension dye?

(Works, p. 41)

In essence these are the questions which Hamlet, too, had posed. Indeed, the grave scene in Hamlet (V. i) is echoed throughout Vaughan's poem. "Dost thou think Alexander looked o'this fashion i'th'earth?" Hamlet enquires of Horatio, an enquiry which Vaughan recalls when he remembers how Alexander himself was said to have been "tam'd" by the contemplation of King Cyrus' tomb. It is the helplessness of the corpse which prompts Hamlet to reflect on the revolution which death brings, a helplessness embodied in the casual desecration of the grave by the gravedigger and his accomplice to which Hamlet and Horatio are curious spectators. The narrator of "The Charnel House" imagines just such a similar desecration, where the bodies "Couch'd in this Accumulative Cell...I could scatter".

The contemplation of these images of death makes, so the narrator tells us, a lasting impression upon him:

Henceforth with thought of thee  
I'll season all succeeding Jollitie...

(Works, p. 42)

a resolve which is immediately undermined by the succeeding poem ("In Amicum foeneratorem") whose opening line ("Thanks mighty Silver! I rejoyce to see...") carries no hint of the preceding mood which has informed "The Charnell House".<sup>23</sup> As Parry suggests, "The Charnell House" may well represent "the tomb in Arcadia" and if that is the case



the narrator's experience is an ironic commentary on the famous Renaissance motto "Et in Arcadia ego" for it is a glimpse of Hades rather than Arcadia that he has been allowed. At the same time, the poem may function as an exposition of I John 2. 15.: "Love not the world, neither the things that are in the world" a text which Vaughan was to explore in his translation of Eucherius's The World Contemned published in 1654, and in his more famous poem "The World" which first appeared in the edition of Silex Scintillans of 1650.<sup>24</sup>

But once all these elements have been recognized, the poem remains as a dramatization of the experience of witnessing the morally charged spectacle which surrounded anatomy and the images of anatomy in the period. If "Nosce te ipsum" was the motto which their images sought to illustrate, then "The Charnell House" is, too, a graphic witness to that tradition. It might also be claimed that, published as the poem was in 1651, "The Charnell House" is itself something of a curious relic. If the endeavour of the mechanical scientist is to dispell mystery, Vaughan's poem with his contemplative narrator summoning up the mysterious interior of the tomb looks back to the images of Vesalius and Leiden rather than forward to the post-Harveian account of the body.

From the gigantic, but vulnerable body of Thomas Hobbes in Cowley's ode, to the gothic horror of the dismembered bodies of "The Charnell House" may seem a considerable step. But in that divergence it is possible to glimpse how the body as evoked by poetry is unfixed. There seem to be no agreed terms with which to imagine the body in poetic discourse. The consensus which shrouded the body within the system of correspondence has been shattered, but no one single idea of the body has emerged in poetry to take its place. So, for Thomas Randolph, the

body is a comfortable dwelling, for Margaret Cavendish it is both a political entity, and an object of rational investigation, for Nicholas Billingsley it demonstrated the wisdom of the creator, whilst for Samuel Pordage it is both the scene of a scientific triumph, and an object for spiritually informed contemplation. For Henry Vaughan, however, the body is a fragile and rapidly decaying organism which, once divested of life, exists within its own kingdom where the living observer is more a trespasser than an investigator. The body as fashioned by art, and the body as fashioned by science begin to appear as separate entities, no longer subject to a unified system of metaphor, imagery, and allegorical re-working.

#### The Anatomical Journey

For Bacon and his seventeenth-century successors, the advancement of learning, and the nobility and utility of the physical sciences were heroic themes; and in celebrating them, they turned to the common-places of the heroic tradition. The natural scientist and the inventor were "godlike" men, exercising "godlike" reason in the interests of the public good.

25

John Steadman's account of the natural scientist as both public benefactor and as worthy of the veneration of that public which he serves might alert us to the manner in which William Harvey was himself transformed into a mythical-heroic subject by poetry. As was suggested in the previous chapter, the language of anatomical writing and the language of heroic discovery could, in the seventeenth century, merge at significant points. That union, however, tended to occur at precisely the moment when knowledge is at its most fragile. The body is celebrated as geographical territory only when it appears as impenetrable, and resistant to discovery. Hence it is possible to see how a trope based on notions of the heroic can emerge, for the hero



must be confronted with a task of heroic dimensions if his status as hero is to be assured. The secretive body becomes the subject of that task, and becomes, too, the locus for heroic confrontation.

There are other scientists besides Harvey who might have been fit subjects for heroic praise, but it is Harvey, of all the scientists, to whom English poetry turned beyond any other.<sup>26</sup> Dryden, for example, a member of the Royal Society (if not a particularly active one) in praising one scientist (Walter Charleton) for his work on a topic quite outside the scope of anatomy, nevertheless cites Harvey amongst the panoply of scientific heroes.<sup>27</sup>

The citation can be found in a poem which Dryden addressed to Charleton and which first appeared as prefatory material in Charleton's Chorea Gigantum of 1663. In this work Charleton had set out to displace Inigo Jones' theory that Stonehenge was the work of the Romans, and argued instead that "the most famous Antiquity of Great Britain" was the *site* of an ancient Danish court. The poem which Dryden wrote on the publication of this theory echoes Charleton's claim, but underlines, too, the patriotic element in thus enquiring into the past. The discovery of Stonehenge as a court rather than a temple prompts Dryden to associate past kings "our Earthly Gods" with Charles I who, according to Dryden, fleeing from "Wor'sters fatal field" takes refuge amongst the ruins and there is "Watch'd by the Genius of this Royal place". But it is not just the past which is turned into Royalist propaganda. If the ancient site underlines the claims of monarchy, then the modern investigators of such topics may also be enrolled into a patriotic frieze:

The world to Bacon does not onely owe  
Its present knowledge, but its future too.  
Gilbert shall live, till Load-stones cease to draw,

Or British fleets the boundless Ocean awe.  
 And noble Boyle, not less in Nature seen,  
 Than his great Brother read in States and Men.  
 The Circling streams, once thought but pools of blood  
 (Whether Life's fewel, or the Bodie's food)  
 From dark Oblivion Harvey's name shall save;  
 While Ent keeps all the honour that he gave.

28

This, perhaps, is the clue to the poetic reputation which Harvey came to enjoy. If, in the seventeenth-century, the natural scientist was venerated in the language of the heroic, then that veneration also sprang from the fact that science could be numbered as a national achievement, and, in the post-Restoration years, a seemingly apolitical example of individuals working towards a common good. Harvey, a Royalist himself, is thus made to appear not simply as a hero of science but a hero of science which expresses a national sense of identity. Anatomy itself had for so long been understood as a field of knowledge in which the continental schools and teachers had been the centre of knowledge and instruction, but Harvey's discoveries and publications were able to suggest that this was no longer the case. In Dryden's poem it is possible to observe this rhetorical strategy in operation. Past and present are brought into a harmonious whole, just as the operation of magnets, the movement of the blood, and the power of the British fleet may also be indicative of the nation's dignity.

This patriotic element suggests an important shift in poetry which sets out to explore the human body. After Harvey it is no longer the case that poetic expressions of scientific discovery can be produced with the seeming abundance with which they had once flourished. The emphasis has shifted from the body as an object worthy of poetic celebration, to those discoverers of the body who become the theme of poetry. Celebration, then, rather than speculation or investigation



becomes the topic of poetry. Harvey himself was the recipient of numerous poetic tributes, and his theory of circulation can be traced emerging in more than one poetic text of the period.<sup>29</sup> But the image which dominates is still that of Harvey the great discoverer:

Blood circles from the heart unto the heart:  
Man's new America speakes Harvie's Art! 30

Thus Barten Holyday, in his Survey of the World published in 1661, presents Harvey as the new Columbus exploring the body which is the ~~site~~ of conquest and discovery.

To explore the body in this fashion is not, of course, a strikingly novel poet& conceit. But in these later accounts of the body two quite distinct themes are merged to produce, for a very brief period, one of the stranger tropes of English poetry. Those two themes are the celebratory ode, and the scientific poem, and the trope which emerges is one that might be termed the anatomical journey. The anatomical journey, so close in many ways to the type of journey which Spenser described, is the microcosmic version of the voyage of discovery. It celebrates the scientist as a heroic figure, but it sets out to depict him at the ~~site~~ of his labours, within the body itself.

An early example of this type of imagery can be found in a collection of poems written by John Collop, and published as Poesis Redivivia in 1656. Collop, a physician and a Royalist, included within the collection a number of poems on medical topics (e.g. "Of the Blood", "On the Humours", "For Phlebotomy" etc.). But his collection also included celebratory odes (and satirical attacks) on medical figures such as Glisson, Noah Bigg, Van' Helmont, and, of course, Harvey.

The poem addressed to Harvey, entitled "On Doctor Harvey"

begins, as Conrad Hilberry has noted, with a topical reference:

What can one pillar onely be thy due  
The Colledge pillar, and truths pillar too?

(Poesis Redivivia, p. 57)

31

As Hilberry notes the "one pillar" which is less than Harvey's due may be understood as the statue of Harvey which the College of Physicians voted to erect in December 1652 after Harvey had offered to build a library at the College in the previous year.<sup>32</sup> This detail (useful as it is for dating the poem), though, only serves to usher into the text the metaphor of discovery which is resolved through the theme of pillars:

Non datur ultra Hercules pillars show,  
Beyond a Hercules labours thou dost go.  
Seav'n headed Hydra, error multiply'd  
Thou need'st no Club, thy knife can soon divide:  
Augean filths no work when vy'd with thee,  
Do'st cleanse the Jakes of all antiquitie...

(Poesis Redivivia pp. 57-8)

Harvey and Hercules are not even rivals. The modern discoverer, voyaging beyond the pillars of Hercules, wields the modern instrument of discovery - the knife - with which he is able to transcend not just a mythical heroic labour, but to transform all ancient myth of accomplishment into a stable which itself must be cleansed. As the poem moves forward, the theme of discovery re-appears with Harvey, in a modern Odyssey, sailing beyond the pillars of Hercules into a new world of discovery:

Thou set'st up sail, swim's through the purple flood,  
Which blush'd before, 'cause never understood.  
Thou circlest through our Microcosm, and we  
Learn more than th'world, our selvs, new worlds by thee.

(Poesis Redivivia, p. 58)

The body is expanded (or Harvey shrunken) to accommodate the new



voyage of discovery from which he returns to receive the hero's tribute, immortal fame. The apotheosis of the scientist is accomplished amidst a celebration of the new age of understanding, itself understood as a banishment of superstition and fear:

Knowledge was eaten through with ages rust,  
And the Serpent now would cheat us with his dust;  
Most do an apple phancy, knowledge fruit;  
Say but an Harvey we assent unto't.  
Yet here we knowledge gain without a death;  
Death onely opens us a way to breath;  
Enabled by the cunning of his knife,  
He Cherubin like doth guard the tree of life.  
Above the milky way in glory shine,  
Lend humane nature lustre more divine;

(Poesis Redivivia p. 58)

Within the poem's extravagant fantasies of praise, Harvey has superceded even the transgression of the Fall. The search for knowledge need no longer confront the scriptural prohibition since Harvey himself now stands within Eden, a "Cherubin" of Christian fable and, at the same time, the recipient of pagan reward for the returning hero - he has attained a place amongst the immortals.

The theme of journeying, discovery, and Harvey surfaces again in a later poem dedicated to the anatomist: Cowley's "Ode upon Doctor Harvey" written whilst Harvey was still alive, but published in Cowley's Verses written upon Several Occasions of 1663. Cowley's poem, though it refers at several points to Harvey's work on circulation, is indebted to Harvey's observation of the formation of the embryo, observations to be found both in De Motu Cordis and in the later De Generatione Animalum (1651). But, as the poem makes clear, investigation into the origins of life and the theme of the marvellous journey can be combined in much the same way that Collop had transformed the work on circulation into a mythical voyage of accomplishment.

The poem begins, though, not with an extravagant apostrophe to Harvey himself, but with the evocation of nature as imagined in Classical myth. Indeed, the world which nature occupies is one which Cowley has discovered through his reading of Ovid rather than his devotion to the methods of observation and record for which Harvey is to be praised. Nature is a "Beauteous virgin" and Harvey is her violent, pursuing, lover. So nature:

When Harvey's violent passion she did see,  
Began to tremble and to flee,  
Took Sanctuary, like Daphne in a Tree:

(Works, p. 12)

The story of Daphne and Apollo is recounted in Ovid's Metamorphoses (I. 450-570). In the fable, Daphne, loved by Apollo, but unable to return his love, flees from her lover, and eventually is transformed by her father, Peneus, into a laurel tree. The detail which Ovid remarks upon, as Apollo confronts the tree, is peculiarly apposite for adoption into a heroic poem celebrating the investigator of the heart. For Daphne, though a tree, can still be discerned as a living being by Apollo: "He placed his hand against the trunk, and felt her heart still beating under the new bark".<sup>33</sup> But there Apollo stops, content to display the laurel as his emblem.

Harvey, the modern Apollo, knows no such limitation. Harvey follows her flight, and thus begins the journey of discovery which is also a pursuit:

But Harvey our Apollo, stopt not so,  
Into the Bark, and root he after her did goe:  
No smallest Fibres of a Plant,  
For which the Eyebeams Point doth sharpness want,  
His passage after her withstood.

(Works, p. 12)

Daphne/nature is pursued by Harvey "through all the moving wood /





De Motu Cordis (Ch. 4) recorded that:

First of all there is in it a drop of blood which beats, as Aristotle likewise observed, from which, when it has grown further and the chick has been formed in part, the auricles of the heart are fashioned, and in their incessant beating life is present. Within a few days afterwards, the outline of the body begins to take shape and the heart itself is created...

(De Motu Cordis, p. 45)

These observations (which Harvey returned to in the later De Generatione) are mirrored in Cowley's poem:<sup>34</sup>

He the young Practice of New Life did see,  
 Whilst to conceal it's toilsome poverty,  
 It for a Living wrought, both hard, and privately,  
 Before the Liver understood  
 The noble Scarlet Dye of Blood,  
 Before one drop was by it made,  
 Or brought into it to set up the Trade;  
 Before the untaught heart began to beat  
 The tuneful March to vital heat,  
 From all the Souls that living Buildings rear,  
 Whether imploy'd for Earth, or Sea, or Air,  
 Whether it in the Womb or Egg be wrought,  
 A strict account to him is hourly brought,  
 How the great Fabrick does proceed,  
 What time, and what materials it does need.  
 He so exactly does the work survey,  
 As if he hir'd the Workers by the day.

(Works, p. 13)

Harvey's first appearance in the poem was as passionate lover of Nature, by this point, however, he has become not so much the lover of Nature as the dispassionate surveyor of the products of nature. Just as the passion (and pursuit) has vanished, so too have all the trappings of myth been dispensed with. In this the poem dramatizes the giving way of older systems of thought, and the emergence of a newer mode of analysis. The record of the love of Apollo has been subsumed, in the poem, by a new type of record - "a strict account" - a phrase which is itself redolent of the undertaking of The Royal Society.



Time, or at least the impulse to mark the passage of time in the minutest detail, is of immense importance to the creation of this "strict account". As the passage from De Motu Cordis illustrates, the passage of time ("First...when it has grown further...Within a few days...") is the measure of the growth of life. This, too, the poem sets out to demonstrate in a series of repetitions ("Before...Before...Before") which are suggestive of a movement backwards in time. Harvey, in the poem's account, is engaged upon a search for origins which entails both a spatial search (within the body) and a temporal journey. As we have seen, however, this journey is not designed to transport the discovering scientist back into the world of pagan myth, so much as it seeks to display the outlines of a new version of creation. This narrative of creation, subject as it is to time, is also one which can be charted "hourly" in the strict account. Accuracy of observation conspires with awareness of the passage of time, to produce an image of the scientist as fulfilling a creational role himself. Harvey's exactitude prompts the poetic account to suggest that it is as if the scientist has himself brought together the material and the workers out of which and with whom life is created.<sup>35</sup>

As the poem moves to its close, the penultimate stanza returns to the theme of heroic discovery once more. Harvey, a warrior for the truth, has confronted nature not by reading "Comments only" nor even by studying the liber creatorum but, in a rather more urgent fashion, actually penetrating the book of creation or life itself: "Thus Harvey sought for Truth in Truth's own book, / The Creatures which by God himselfe was writ;" (Works, p. 13). Art and science, released from the "Fantastick round" are "cur'd" by the new circularity which Harvey has uncovered. Mystery, secrecy, and error are exiled - a "clearer

Air" pertains.

The poem does not, of course, end on this triumphal note. In fact all that has gone before is qualified by the final stanza of Cowley's ode. If the poem's endeavour was to display Harvey as both the imaginative genius behind the rationalist approach to the body, and as himself a product of that rationalism, then it can only be maintained that Cowley is dissatisfied with such an endorsement of scientific progress. In the final stanza, having escaped from the past, and having measured time, Harvey is transported into the present. Shockingly, the present is revealed as both utterly unsympathetic to all that Harvey stands for, and disturbingly able to ruin all that he has worked for. Harvey, fertile with more "useful secrets" is destroyed by "a barbarous War's unlearned Rage", and suddenly we have retreated back into myth:

Oh cruel loss! as if the Golden Fleece  
 With so much cost and labour wrought,  
 And from afar by a great Heroe brought,  
 Had sunk even in the Ports of Greece.

(Works, p. 14)

The mythical narrative of triumphant return and accomplishment is, when imaginatively transported into the present, translated into a cruelly ironic tale of disaster. Harvey, at the poem's outset the modern Apollo, becomes by the poem's end a modern (and failed) Jason. Similarly, the poem's return into a re-worked form of myth signals the return of time. Time, which Harvey had so carefully charted and turned to his own use, eventually triumphs over the scientist: "His body Alas! and time it must command." Time, achieving power over Harvey and (again ironically) over Harvey's body, is followed by the eventual return of Nature. Nature, whom Harvey had pursued into the



structures of the body, and who initiated the poem in the guise of "Coy Nature", returns to close the poem as an avenging woman:

And Nature now so long by him surpast  
Will sure have her revenge on him at last.

(Works, p. 14)

Cowley's "Ode Upon Doctor Harvey" is far from being a celebratory evocation of seventeenth-century rationalism. Instead, the poem moves through a complex network of myth and scientific allusion to present a richly suggestive framework in which to locate the figure of the scientific hero. That figure is indeed heroic, though not simply in a triumphal sense. Harvey is a protean figure, but in his last transformation the poem refuses simply to mythologize the scientist. The voyaging discoverer returns home to discover that the whole enterprise has been, if not in vain, then certainly a qualified success.

This qualification may seem strange coming from the author of a work such as A Proposition for the Advancement of Experimental Philosophy (1661) where Cowley is revealed as an enthusiastic partisan of the rationalist exploration of nature. But the "Ode Upon Doctor Harvey" is not the only poem where some degree of hesitancy in the face of scientific progress may be discerned. Amongst the Pindarique Odes which Cowley published in Poems of 1656 is one addressed to the Lumleian lecturer at the College of Physicians: Dr. Scarborough. Again, the scientist appears as heroic. Scarborough is sent by God to cure the effects of the civil war which has taken place within man, mirroring the Civil War which has ruined the body-politic. Half-artisan, half-magician, able to understand the human body "As if some living Chrystal Man thou'dst seen" (Poems, p. 36), all Scarborough's talents are evoked only to prepare the reader for a final stanza which

is not dissimilar to the closing stanza of the "Ode Upon Doctor Harvey":

Ah, learned friend, it grieves me, when I think  
 That Thou with all thy Art must dy  
                   As certainly as I.  
 And all thy noble Reparations sink  
 Into the sure-wrought Mine of treacherous Mortality,  
 Like Archimedes, honourably in vain,  
 Thou holdst out Towns that must be last be ta'ne,  
 And Thou ~~thy~~ self their great Defendor slain.

(Poems, p. 37)

Curiously, it is as if Cowley derives solace from the contemplation of his scientific heroes' mortality. They die, for all their prowess, as certainly as he, Cowley, will die.

It would not, of course, be fair to argue, on the evidence of these two poems, that Cowley is suddenly revealed as sceptical of the whole endeavour of post-Harveian science. What is revealed, however, is that those scientific texts which, in the seventeenth-century, evoked a language of discovery and of geography at the point when the body appeared as most mysterious find their counterpart in Cowley's poetry. Just as the scientist retreats into an older system of metaphor when confronted by the failure of, say, mechanics, to depict every detail of the organism, so the poetic scientist-hero voyages into the body only to find that his achievement is, perhaps, a partial one.

This voyage into the body, which we have seen associated by Collop and Cowley with Harvey in particular, was to be developed to its greatest (and strangest) extent in an otherwise unknown poem by a very little known writer: Jane Barker. It is as the popular early novelist, rather than a poet, that Jane Barker has received some attention.<sup>36</sup> In fact Jane Barker's first publication was a collection of poems published as Poetical Recreations in 1688. One in particular



of these poems is of interest to this study, that entitled "A Farewell to Poetry, with a long Digression of Anatomy". Two versions of the poem exist, one being the version published in 1688, the other being a later, slightly altered version, which appeared in a rather different context in 1723.<sup>37</sup>

Barker's poem begins, as the title promises, with a "farewell" to poetry. From henceforth her mind is to be devoted to medical authors, a pious act of remembrance, it is revealed, since this will commemorate her dead brother who was a medical student. The poem is also, however, a descriptive anatomy in its own right. The form in which the anatomy is conducted is the now-familiar one of the anatomical journey, though this journey is a rather more involved affair than those hitherto described. The narrator of the poem is guided by the anatomist Bartholinus, who "does to me Nature's architecture shew" (Poetical Recreations, p. 100).<sup>38</sup> The term "architecture" might alert the reader to another familiar device, that of the body as a building. In fact, the whole poem conceives of the body as an enormous structure through which the narrator wanders with her guide, the anatomist, explaining the various features which they encounter. As they rove "expatiating" through the body, they encounter Walkeus and Harvey.<sup>39</sup> In the company of these two, the narrator moves through the stomach, from whence, proceeding by a "small ascent" ("per Diaphragma" as a footnote helpfully makes clear) they arrive at the heart. At this point, appropriately, Harvey takes over the responsibility for the journey:

Come on, says Harvey, don't stand gazing here,  
But follow me, and I thy doubts will clear.  
Then we began our journey with the Blood,  
Trac'd the Meanders of its Purple Flood.  
Thus we through may Labyrinths did pass,  
In such, I'm sure, old Daedalus ne'er was;

(Poetical Recreations, p. 102)

The journey continues along the blood stream, and as they move through the body, the narrator overhears anatomists, disputing as to the various functions of the features which they see. Passing through the brain, they return to the heart once more. It is the fact of their return that convinces the narrator that the blood does indeed circulate.

With the return to the heart, they discover another anatomist, Lower, who, in a phrase recalling the journey Harvey had embarked upon in Cowley's poem, is "Surveying the whole structure of the Heart" (Poetical Recreations, p. 103) Lower recognizes the narrator, and the poem thus concludes:

Welcome, said he, sweet cousin, are you here,  
Sister to him whose worth we all revere?  
But ah, alas, so cruel was his Fate,  
As makes us since almost our practice hate;  
Since we cou'd find out naught in all our Art,  
That cou'd prolong the motion of his Heart.

(Poetical Recreations, p. 104)

What is to be made of this poem? The obvious point is that, again, it presents anatomical discovery through the metaphor of the journey of discovery. The point of departure for this journey, traditionally, might be the type of guided voyage which Dante makes in the company of Virgil, or closer to home, the guided tour of Arthur and Guyon through the house of Alma. Here, however, the narrator journeys into the body to meet contemporary or near-contemporary figures who are able to render the body domestic, known, and understood.

In the 1688 version the poem is footnoted in a manner which might recall De hominis procreatione or The Purple Island. The footnotes might suggest a desire to have the poem understood as a serious explication, cast into an imaginative form, of anatomical function.



Read thus, the poem can also be seen as opening the human body to two complementary discourses: scientific and poetic. The footnotes, however, rarely rise above the level of the crushingly literal, sometimes appearing almost as a pastiche of scholarly reference, as when, for example, the visit to the "kitchen" or "Ventriculus" carries the somewhat unenlightening explanation (footnote e): "Morbe in infirmo Ventre, Diarrhoea, etc.". Yet, the notion of two rival discourses, jostling for attention, is difficult to dislodge given the poem's opening which claims to register the moment at which one discourse "kind Poetry" gives way to "new acquaintance": the writings of the classical medical authorities cited in the opening section of the poem.

In one final respect, however, Barker's poem can be seen as taking its place within the rhetorical strategems that have been remarked upon in both scientific and poetic accounts of the human body, and that has to do, once again, with the attempt at dispelling mystery whilst at the same time re-admitting the mysterious. On the surface "A Farewell to Poetry" appears to be an attempt to divest the body of all its potential strangeness or wonder. Entering into the body, the narrator discovers that it is a mine of activity, with, at every corner, anatomists busily surveying or charting its various structures. The body is the site of a journey of discovery, but nothing new or unexplained is uncovered. Anatomists confidently explain to the narrator its various features, traversing "Labyrinths" more complex than any encountered in myth with unhesitating skill. Yet, the very final lines of the poem serve to render all this busy activity if not absolutely pointless, then at least as possessing only partial efficacy. When the anatomist Lower, a follower of Harvey

and the author of a work on the heart (Tractatus de Corde of 1669), is found, labouring within the heart, his greeting to the narrator is laced with regret and apology. The narrator's brother has ~~not~~ been saved despite the discoveries of Lower and his contemporaries:

"...nought in all our Art, / ...cou'd prolong the motion of his Heart". The anatomist may measure the heart's motion, explain that motion's function, but he still remains powerless to intervene in the body's operations. The marvellous journey into the body's interior reveals, in the end, a capacity for the body still to outwit rational investigation, just as Cowley imagined that Harvey himself would, one day, be outwitted by Nature.

### Conclusion

The images with which this chapter opened, images of circulatory processes found in the writing of a political scientist, an anatomist, and two poets, might have suggested that, in the later seventeenth-century, a consensus has been discovered. Harvey's discoveries, symbolic of the advance of science itself, would seem to have been assimilated into the common vocabulary of scientist and poet alike. In fact, no such consensus can be held to exist. Far from the enterprise of the natural scientists being assimilated by poetry, the situation appears as far more confused. One might go as far as to claim that what has happened is that the endeavour of the scientists to produce a shared language with which to describe the body, has shattered the framework of analogies and correspondencies which poetry, hitherto, was able to draw upon in its attempts to describe the human frame.

So, from those confident images of circulation to be found in



Hobbes, Charleton, Dryden, and Denham, we move to the backward glance to the Horatian body of Randolph, the body as a scene of political confrontation in Cavendish, the anachronistic attempts at composing "sacred anatomy" in the case of Pordage and Billingsley, the horror-struck contemplation of the dismembered body in Vaughan's "The Charnell House", the heroic journey into the body in Collop's celebration of Harvey, and finally to the proclamation of the body as a mystery in Cowley's supposedly de-mystifying account of Harvey, and Barker's sadly unresolved journey into the body in her anatomical poem.

John Collop was in no doubt, however, that the new age of understanding had dawned: "Knowledge by circling, now's in the progress" (*Poesis Redivivia* p. 52) he concludes his short poem "On the Excellent Dr. Glisson", a claim which is echoed by Glanvill, writing in 1668: "...nature is unwound, and resolv'd into the minute rudiments of its composition".<sup>40</sup> The unwinding of nature, and the circulation of information both are suggestive of a new and optimistic light in which to understand the body. Yet, the experience of those poets who, drawing upon the tradition of poetic anatomy which we have traced so far, sought to once more poeticize the body is quite different. Far from there being a circulation of ideas and information, it would appear that, for the poets, there are only old figures, well-tried metaphors, and traditional images to which to resort.<sup>41</sup>

If we recall Robert Boyle's meditations in time of sickness, we might remember that the language of mechanics seemed to rescue the body from the charge that it is out control, unknowable, perhaps possessed of malignant designs on the individual personality who inhabits the body. Cowley's exploration of vengeful nature in his poems on Harvey and Scarborough, suggests that in poetry the body is still conceived

of as a betrayer. The conception surfaces even when the poem is at most pains to present an image of the natural philosopher as the conqueror of nature, or the triumphant explorer of the body.

We may conclude, then, that the body as written in poetry, and the body as written in the strict accounts of the natural philosopher, no longer conform to the same perspective. This signals the end of a language of the body which had once been the shared tool of the imaginative writer, and the explorer into nature. The two undertakings will now begin to diverge even further apart, a movement which finds specific utterance in Edward Benlowes's manifesto for a kind of poetry unencumbered by any thoughts of the investigation of the natural world. "Divine Poesy" Benlowes writes in 1652:

is the internal triumph of the Mind, rapt with S.Paul  
into the third Heavn, where she contemplates Ineffables:  
'tis the Sacred Oracles of Faith put into melodious anthems  
that make musick ravishing, no earthly jubilation being  
comparable to it...

42

By contrast, Benlowes claims, "Natural Philosophy hath not anything in it which may satisfie the soul". This turning away from "earthly jubilation" is the sign of a fracture between the world of the poet and the scientist.

It is at this point that we turn to the writings of Thomas Traherne. In turning to Traherne, the problem outlined by Benlowes that the "triumph of the mind" is a rapture to which "Natural philosophy" offers no comparable experience, should be kept in mind. For, in the short concluding chapter which follows, it is the competing claims of reason and rapture located in Traherne's discourse of the body, which will be examined.



## Notes

<sup>1</sup> John Dryden, The Poems and Fables, ed. James Kinsley (London: OUP, 1970) p. 52.

<sup>2</sup> Dryden, Poems and Fables, p. 105.

<sup>3</sup> Dryden, "Letter to the Honourable Sir Robert Howard" in Poems and Fables, p. 44.

<sup>4</sup> Sir John Denham, Poetical Works, ed. Theodore Howard Banks (New Haven: Yale U.P., 1928) pp. 120-121.

<sup>5</sup> See Peter Dear, "Totius in Verba: Rhetoric and Authority in the Early Royal Society," Isis 76 (1985) p. 146; Webster, Great Instauration, passim; Stimson, "Puritanism and the New Philosophy," pp. 325-334; Hunter, Science and Society, pp. 59-86.

<sup>6</sup> References to Cowley's poetry are either to Poems...written by A. Cowley, (London, 1656) referred to as Poems or Works of Mr Abraham Cowley (London, 7th ed., 1681) referred to as Works.

<sup>7</sup> Trotter, Poetry of Abraham Cowley p. 129.

<sup>8</sup> So, Paul Korshin claims that the ode ends with "an involved display of Interregnum contrarities which reintroduces us to rhetorical casuistry." Paul Korshin, From Concord to Dissent: Major Themes in English Poetic Theory 1640-1700, (Menston, Yorks.: The Scholar Press, 1973) p. 20.

<sup>9</sup> Trotter, Poetry of Abraham Cowley, p. 131.

<sup>10</sup> Thomas Randolph, Poems with the Muses Looking-Glass and Amyntas (London, 1638) referred to as Poems. Randolph's collection appeared six times before 1668.

<sup>11</sup> Ben Jonson, Poems, ed. Ian Donaldson (London: OUP, 1975) p. 87.

<sup>12</sup> It is important to note, here, that in the mid seventeenth-century, the divided or disjointed body becomes an emblem, as one would expect, of political significance. Randolph's pre-civil war division of the body is thus in direct contrast to the divided body in Lovelace's "A Mock Song". Lovelace's "The Snail", on the other hand, presents an image of withdrawal into the self which expresses

exactly the type of retreat to be found in Randolph's poem. See: Richard Lovelace, The Poems, ed. C. H. Wilkinson (Oxford: Clarendon Press, 1930, rpt. 1953) p. 155 and p. 136.

<sup>13</sup> Margaret Cavendish, Poems and Fancies written by the Right Honourable the Lady Newcastle, (London, 1653) sig. A5<sup>r</sup>. Referred to as Poems.

<sup>14</sup> Nicholas Billingsley's Kosmobrephia was published in 1658. The poem's dedication is dated 1656, and prefatory verses by William Jacob claim that the author was fifteen years old when he began work on the poem. Billingsley was born in 1633, suggesting that the poem was begun c. 1648.

<sup>15</sup> Nicholas Billingsley, Kosmobrephia or the Infancy of the World (London, 1658), Preface to the Reader.

<sup>16</sup> Willis, Remaining Medical Works, sig. A4<sup>v</sup>.

<sup>17</sup> Samuel Pordage, Mundorum Explicatio or the Explanation of an Hieroglyphical Figure (London, 1661) title-page.

<sup>18</sup> See E. L. Marilla, "The 'Publisher to the Reader' of Olor Iscanus," RES 24 (1948) pp. 36-41.

<sup>19</sup> Kenneth Friedenreich, Henry Vaughan, Twayne's English Authors Series 226 (Boston, Mass.: Twayne Publishers, 1978) pp. 93-4.

<sup>20</sup> Henry Vaughan, The Works ed. L. C. Martin (Oxford: Clarendon Press, 2nd ed., 1957) referred to as Works.

<sup>21</sup> It has been noted that "architectural inventions" on the title-pages of books in the period "recall the free-standing monument of architectural reality, whose purpose was to celebrate the living or commemorate the dead" Margaret Corbett and Ronald Lightbown, The Comely Frontispiece: The Emblematic Title-page in England 1550-1660, (London: RKP, 1979) p. 8. See also Henry Vaughan, The Complete Poems ed. Alan Rudrum (Harmondsworth: Penguin Books, 1976, rev. ed. 1983) p. 471 (note 3).

<sup>22</sup> Friedenreich, p. 94.

<sup>23</sup> Graham Parry, however, claims the opposite, suggesting that the "spirit of the charnel-house" informs Olor Iscanus as a whole. See Graham Parry, Seventeenth-Century Poetry: The Social Context (London: Hutchinson and Co. Ltd., 1986) p. 100.

<sup>24</sup> See Paul A. Olsen, "Vaughan's 'The World': The Pattern of Meaning and Tradition," Comparative Literature 13 (1961) pp. 26-32.



<sup>25</sup> Steadman, p. 15.

<sup>26</sup> A significant exception is Milton's evocation of Galileo in Paradise Lost I. 288-291, III. 588-590, and V. 261-263.

<sup>27</sup> Dryden praises the Royal Society in Annus Mirabilis (stanzas 165-6), and has Crites in the Essay of Dramatic Poesy (1668) enthusiastically celebrate the triumphal march of experimental philosophy: See John Dryden, Selected Criticism ed. James Kinsley and George Parfitt (Oxford: Clarendon Press, 1970) p. 25. These comments have led critics to assume that Dryden was an unqualified supporter of all that the Society stood for: see Mark Van Doren, John Dryden, A study of his Poetry, (Bloomington, Ind.: Indiana U. P., 3rd ed., 1967) pp. 12-15; Louis I. Bredvold, "Dryden, Hobbes, and the Royal Society," MP 25 (1927) pp. 435-438. For an alternative account, which suggests that Dryden was only a temporary enthusiast, see: Claude Lloyd, "John Dryden and the Royal Society," PMLA 45 (1930) pp. 967-976.

<sup>28</sup> Dryden, Poems and Fables, p. 33.

<sup>29</sup> In addition to the poems which feature Harvey discussed in this and the final chapter, I have noted the following poetic tributes to Harvey and poems in which Harvey's discoveries are mentioned: Peter Bowne, "Doctori Harvey" in Peter Bowne, Pseudo-medicorum Anatomia (London, 1624) sig. A3; William Cartwright, "A New-Years Gift to Brian Lord Bishop of Sarum upon the Author's entering into Holy Orders, 1638" in William Cartwright, Comedies, Tragi-comedies and Other Poems, (London, 1651) pp. 284-5; Sir John Birkenhead, "Lines on William Harvey" commendatory poem in Cartwright's Comedies; Martin Llewellyn, "To the Incomparable Doctor Harvey" in William Harvey, Anatomical Exercitation concerning the Generation of Living Creatures, (London, 1653) sigs. A<sup>v</sup>-A4; Robert Grove, Carmen de Sanguinis circuitu, A Gulielmo Harvaeo, primum invento, (London, 1685). On Bowne's poem see: Richard J. Durling, "Some Unrecorded Verses in Praise of Robert Fludd and William Harvey," MH 8 (1964) pp. 279-281; on Cartwright see: C. A. R. Boyd and S. A. C. Boyd, "An Early Reference in English Poetry to the Circulation of the Blood," JHM 25 (1970) pp. 212-214; On Birkenhead, see Keynes, Life of Harvey p. 309; on Grove see Keynes, Life of Harvey, p. 313 and S. Weir Mitchell, Some Recently Discovered Letters of William Harvey and other Miscellanea, (Philadelphia, 1912) p. 41.

<sup>30</sup> Barten Holyday, A Survey of the World, (Oxford, 1661) stanza 190.

<sup>31</sup> John Collop, Poesis Redivia: Or, Poesie Revived with an introduction by K. E. Robinson (menston, Yorks.: The Scolar Press, 1972).

<sup>32</sup> See Conrad Hilberry, "Medical Poems from John Collop's Poesis Redivia (1656)," JHM 11 (1956) p. 408. See also F. N. L. Poynter, "An Unnoticed Contemporary Poem in Praise of Harvey, and its Author John Collop," JHM 11 (1956) pp. 374-383.

<sup>33</sup> Ovid, Metamorphoses, trans. Mary M. Innes (Harmondsworth: Penguin Books, 1955 rpt. 1984) p. 43.

<sup>34</sup> A discussion of Harvey's ideas on generation can be found in Whitteridge, William Harvey, pp. 210-236.

<sup>35</sup> Compare to Birkenhead's "Lines on William Harvey" of 1651 where a similar journey of discovery culminates in the suggestion that Harvey's observations are so accurate that it is as if the discoverer were, in fact, the creator:

For as immortall HARVEY'S searching Brain  
Found the Red Spirit's Circle in each Veyn,  
Hath open'd Straights, and saild our World about,  
As if he made that sluice, not found it out:

(Quoted in Keynes, Life of Harvey, pp. 309-310).

<sup>36</sup> See John J. Richetti, Popular Fiction Before Richardson: Narrative Patterns 1700-1739, (Oxford: Clarendon Press, 1969) pp. 230-239; Jane Spencer, The Rise of the Woman Novelist from Aphra Behn to Jane Austen, (Oxford: Basil Blackwell, 1986) pp. 62-70.

<sup>37</sup> The 1723 version of the poem appears in the course of Barker's novel A Patch-work Screen for the Ladies; or, Love and Virtue Recommended and is recounted by the heroine, Galesia. Galesia, who appears in Barker's first novel, Loves Intrigues (London, 1713) as a "foolish virgin" (Richetti, p. 230) is a woman not unlike Margaret Cavendish, Duchess of Newcastle, struggling to attain learning with the help of sympathetic men, in this case her brother, a medical student returned from Leiden:

...my brother continued to oblige my fancy, and assisted me  
in Anatomy & Simpling, in which we took many a pleasing walk...  
I made such progress in Anatomy, as to understand Harvey's  
circulation of the Blood, and Lower's motion of the heart.

(A Patch-work Screen, p. 10).

<sup>38</sup> Jane Barker, POETICAL RECREATIONS consisting of Original Poems Songs, Odes, etc. With Several New Translations (London, 1688).

<sup>39</sup> In the 1723 version "Walkeus" is corrected to "Willis" - the high-priest of mechanism thus making his appearance in the poem.

<sup>40</sup> Joseph Glanvill, Plus Ultra (London, 1668) p. 11.



<sup>41</sup> See, for example, the poem entitled "The Tempers" by "W.H." which, though published in 1655, evokes the body in the age-old language of the humours: W. H., Poems by W. H. (London, 1655) p. 68. Amongst the very few poems I have uncovered which discuss the body in mechanical terms are: Richard Leigh, "Greatness in Little" (a poem on insects) in Leigh's Poems Upon Several Occasions (London, 1675) p. 38; Edward Baynard, Health (London, 7th ed., 1742) where the heart is described as a "mill" or "engine" and the body as a whole is eulogized in terms which recall Walter Charleton as "this great Automaton" (pp. 27-9).

<sup>42</sup> Edward Belowes, Theophilia or Loves Sacrifice, A Divine Poem (London, 1652) sigs. A<sup>r</sup>-v.

## Chapter Seven: Conclusion: Thomas Traherne and the Body



### Introduction

In the later seventeenth century, the disjunction between the language of poetry and the language of science, as it was realised in attempts at describing the anatomical configuration of the human frame, would appear to be perfectly realised in the writings of Thomas Traherne. Benlowes's call for a kind of poetry which describes "the internal triumph of the mind, rapt...into the third Heaven, where she contemplates ineffables" would thus appear as a form of retreat. The retreat is one which leads poets out of the Cartesian world of machinery into a world which counters empiricism with spirituality. Modern accounts of Traherne have, by and large, stressed this sense of a mystical withdrawal from the claims of empiricism. So, Graham Parry writes that it was "Traherne's immense good fortune to be born in Paradise" whilst Malcolm Day remarks upon Traherne's "intuitive perception of spiritual things".<sup>1</sup> Traherne, A. L. Clements has observed, leans back to an older tradition of writing, one that is informed by neo-platonism, the sacred scriptures, and christian mysticism.<sup>2</sup> The picture that emerges is one that stresses an essential conservatism on the part of Traherne, where, despite the "practical and empirical perspective of new science...the old truths remain".<sup>3</sup>

Understanding Traherne as an intellectual conservative is made easier when it is recalled to what extent his writing is indebted to the Cambridge platonists. In some sense, Traherne has been thought of as the poetic "voice" of the Cambridge group.<sup>4</sup> If, further, the work of More, Culverwel, Whichcote, and Cudworth is seen as fundamentally sceptical of the empiricist movement, then it becomes all the more sensible to understand Traherne as enacting, in poetry, that retreat from the "strict account" proposed by the Royal Society and its

adherents.<sup>5</sup> With reference to the body, we might go on to assume that it has become the sole preserve of the rational scientist - as though the marginal annotations of Phineas Fletcher's text have finally come to represent the central, or capital, position.

In this brief concluding chapter, however, which must function as a conclusion to this study as a whole, I should like to propose that the intellectual map is not quite so easily drawn. Traherne's poetry, which contains some of the most striking anatomical images of the period, expresses a complex attitude both towards the human body specifically, and towards scientific knowledge in general. Rather than read his poetry as a retreat, emblematic of the disjunction in scientific and poetic discourse, I should like to suggest that Traherne's understanding of the body and, more importantly, the body's place in creation, helps us to understand the fascination with which poetic and scientific texts pursued the image of the opened human frame. In Traherne's writing we can discern the final attempt at offering a unified account of the body, but one that is by no means to be understood as the product of intellectual conservatism.

#### "Unsearchable Offices"

Traherne saw the body as far more than simply a container for the precious substance of the soul. "The Author to the Critical Peruser" is a poem which (though it exists only in a version preserved by Philip Traherne) can act as a guide to the reading of Traherne's poetry as a whole. For the poem's endeavour is to tell the reader what not to expect in what follows: "curling metaphors that gild the sence" or "painted eloquence" (Poems, p. 2).<sup>6</sup> In describing the body, which the poem proclaims will also be the subject of his writing,



Traherne offers none of the harsh prison imagery which we might associate with Donne's depiction of the soul fleeing across a pre-copernican universe in the second anniversary poem, or with Marvell in "A Dialogue Between the Soul and the Body".

Instead, for Traherne, the body is composed of "precious hands", "Tongues and Lips Divine", and "polisht Flesh". The body, here, is all surface, yet this impression of a body realised only from the outside is dispelled as we move further into the poem, where:

...whitest Lillies join  
With blus<sup>h</sup>ing Roses and with saphire Veins,  
The Bones, the Joints, and that which els remains  
Within that curious Fabrick, Life and Strength,  
I'th'wel-compacted bredth and depth and length  
Of various Limbs, that living Engins be  
Of glorious worth;

(Poems, p. 3)

The body, here, is visually spectacular, and its "glorious worth" is worthy of the highest adjectival opulence that he can discover. At the same time, however, the sense of this being the external body does not vanish. Even though bones and joints are mentioned there is none of the anatomical intensity we might associate with Donne, for example. Anatomy, as such, is compressed into the seemingly casual comment "what els remains".

But it is also possible, in this opening statement of the body's worth, to see how a different language of the body is embedded within the poem. The search for "Life and Strength" might be thought of as echoing the Harveian search for life which Cowley described in his ode on Harvey. Similarly, if the body is a visual delight, for Traherne, it is also a "curious Febrick" and one that, significantly, is susceptible to measurement: "bredth...depth...length" being, as we have seen, crucial to Harvey's undertaking. Finally, in a resolutely

Cartesian phrase, though it is of "glorious worth" it is also composed of "living Engins".<sup>7</sup>

"The Author to the Critical Peruser" functions, then, not only (as Clements has observed) to provide the reader with the necessary skills of interpretation to read what is to follow, but also to promote the body as a significant subject in its own right. Traherne was fascinated with the body. Carol Marks writes that it:

...was a source of infinite wonder to him. Whereas his contemporaries anatomized man to counter atheism...Traherne praised man's "Organized Joynts, and Azure Veins"...as manifestations of God's overflowing love...a curious poetical-prosaic mixture of physiology and theology. 8

To mix theology and physiology is, as we have seen, not uncommon in seventeenth century writing. But Marks' stress on Traherne's "wonder" is an accurate observation. Wonder, which we might associate with a certain reticence in approaching the body too closely, appears to be a characteristic attribute of Traherne's writing. In this he is, perhaps, significantly different from Donne, as Ellrodt's oft-quoted remark concerning Traherne's refusal to wield the scalpel suggested.<sup>9</sup> But, for all Traherne's desire to register the outward form of the body rather than its internal configuration, and to remark upon appearance rather than function, there is always the suggestion that the body might be susceptible to closer analysis. We can trace this possibility in those phrases which call forth measurement and machinery in "The Author to the Critical Peruser" or in this passage from the "Thanksgivings" which were first published in 1699:

Those blinder parts of refined Earth  
 Beneath my skin;  
 Are full of thy Depths  
 many thousand uses,  
 For Hidden operations,  
 Unsearchable Offices.

(Poems, p. 216)



Initially, we might read this as an assertion of the body's resistance to anatomical scrutiny. Its internal structure is composed of "blinder parts", its depths are unsounded, operations hidden, and offices "unsearchable". Yet, even whilst this resistance is noted, we must also be aware of Traherne's insistence on the body's composition as an organization of functions, or "uses...operations...offices". Not unlike the mechanical scientist, Traherne thinks of the body as a collection of functions which, though they promote wonder at the complexity of their arrangement, might still be mechanical in their nature.

The difference, of course, is that where the mechanic sought to banish wonderment, Traherne seems positively to embrace wonder as a principle of exploration. So, the body is a "treasury of wonders" the contemplation of which calls forth "Amazement", "admiration", "joy", (Poems, pp. 215-6) and also, perhaps, curiosity. For if Traherne, to adapt Ellrodt's phrase, is himself unwilling to perform the dissection, he is aware that others might be so willing. The results of such a dissection, too, might also be of interest to him. So, in "The Person", he recommends anatomy as a possible method of enquiry: "Survey the skin, cut up the flesh, the Veins / Unfold" (Poems, p. 76) he advises. However, once the body has been so dis-jointed, a mystery is still intact:

The glory there remains.  
The Muscles, Fibres, Arteries, and Bones  
Are better far than Crowns and precious Stones.

(Poems p. 76)

We might understand this rejection of the comparison between the body and precious stones as suggesting a rejection of material wealth in favour of spiritual values. Like the image of Charles I in Eikon Basilike, a heavenly crown is preferable to an earthly one. And yet,

the poem doesn't quite say that. Instead, it contemplates the physical dimensions of the body - muscles, fibres, arteries, bones - as objects worthy of contemplation in their own right. Specifically, the poem rejects those microcosmic tangles of comparison beloved of both the Renaissance scientist and poet, in favour of description of the objects in themselves.

In other words, we can discern a central paradox in Traherne's response to the body. For whilst he might appear to be promoting the body's spiritual dimensions, such a programme brings him into a paradoxical alignment with just that type of intellectual and linguistic reform which the Royal Society had endeavoured to propose. So, in "The Salutation" the "limbs in boys" are "sacred treasures" because their value is innate. They "More wealth include, than all the world contains" (Poems, p. 4). Again and again, in Traherne's writing, patterns of thought, modes of expression, and linguistic terms, associated with older habits of mind, are evoked only to be rejected. The body itself, not its significance in terms of some other part of creation, becomes the object of contemplation. We can discern this tendency in Traherne's writing even as he appears at his most determinedly anti-rationalistic. In the First Century (34), for example, he seems at first to suggest that the body and precious metals are comparable: "My Lims and Members when rightly prized are comparable to the fine gold". The difficulty, it seems, is only that of ensuring that the terms of comparison are equal to the task: "the Topaz of Ethiopia and the Gold of Ophir are not to be compared to them", he continues. In preferring "fine gold" (i.e. refined gold, OED) to the gold of Ophir, Traherne is rejecting the wealth of Solomon (I Kings, 9. 28) but he is also comparing the body to that foretold in Isaiah



13. 12: "I will make a man more precious than fine gold; even a man than the golden wedge of Ophir". So, Christ's body, and Traherne's body, appear to transcend one form of comparison even as they embrace another. But the passage goes on to reject all such comparisons:

What diamonds are equal to my Eys; What labyrinths  
to mine Ears; what Gates of Ivory, or Rubie Leaves to  
the Double portal of my Lips and teeeth? Is not  
sight a jewel? Is not hearing a treasure? Is not  
speech a glory?  
(Centuries I. 34)

The labyrinths of the ears which Donne had struggled to escape from, and the opulent structure of eyes and mouths encountered in The Faerie Queene are dismissed. What is affirmed here, however, is not only the objects themselves without need of comparison, but the functions (sight, hearing, and speech) which are the product of those objects.

Though Traherne turns, frequently, to an evocation of richness and wealth, a catalogue of the variety of the world and all that it contains, he is careful to discover in that diversity not a means of comparison, a source of similes and metaphors, but an example of use. At the same time, the body transcends the richness with which it is surrounded. Iron, brass, copper, lead, tin, carbuncles, emeralds, pearls, diamonds, he writes in "Thanksgivings for the Glory of God's works" are not in themselves the means whereby to create a tissue of poetic comparison. Instead:

All these  
Hast thou given to our bodies,  
Subjected the same to the use of our hands.

(Poems, p. 245)

The crucial phrase, here, is "subjected...to the use". For the evocation of the world's richness is almost Baconian in its insistence on the potential power which is transferred into human hands.

But the association of the body with images of opulent wealth has, nevertheless, helped Traherne's critics to understand him as escaping out of the utilitarian values of rationalism into the escapist world of fideism. Or, as one commentator notes, his writing "may be regarded as a re-affirmation of the old integrated world picture, as against the notorious removal of faith from the realm of nature".<sup>10</sup> A language which is so carelessly free with its adjectives and ornamentation, it is usually concluded, could hardly be the product of a writer who had any sympathy with the reforming projects of Sprat or Wilkins. Yet, Traherne's "theory" of spiritual language accords closely with the Royal Society's attitude towards language, and with the discussion of language expressed by George Herbert in "Jordan II". For Traherne's comments on his own poetic language, in "The Author to the Critical Peruser" might almost be termed Hobbesian. His poetry will contain no:

...curling metaphors that gild the Sence,  
Nor Pictures here, nor painted Eloquence;  
No florid Streams of superficial Gems,  
But real Crowns and Thrones and Diadems!

(Poems, p. 2)

Traherne conceives of the resources of language - its formal devices - as potentially resources of concealment. His purpose, he says, is to penetrate below the formal level, and below the surface appearance of language to uncover the "real". This struggle to uncover the "real", a struggle which we might think of as an attempt at reinvesting language with a purity similar to that desired by the founders of the Royal Society, is investigated in a poem where the anatomized body and the problem of language conspire to produce what may be thought of as one of Traherne's most confusing texts: "The Person".<sup>11</sup>



"The Person" begins with a direct address to the body:

Ye Sacred Lims,  
A richer Blazon I will lay  
On you, then first I found:  
That like Celestial Kings,  
Ye might with Ornaments of Joy  
Be always Crownd.

(Poems, p. 75)

Ornamentation, in direct contradiction to the programme of poetic language suggested in "The Author to the Critical Peruser", is the dominant theme of the opening section of the poem. As the verse continues, more and more splendour is piled upon the body, so that it gradually begins to disappear as an organic structure to emerge as a glittering texture of artificiality:

A Deep Vermillion on a Red,  
On that a Scarlet I will lay,  
With Gold Ile Crown your Head,  
Which like the Sun shall Ray.  
With Robes of Glory and Delight  
Ile make you Bright.

(Poems, p. 75)

At the point when we might imagine that the body can hardly move under the weight of poetic artifice which has been heaped upon it, Traherne begins to reverse the operation and something akin to an anatomy is initiated:

Mistake me not, I do not mean to bring  
New Robes, but to display the Thing:  
Nor Paint, nor Cloath, nor Crown, nor add a Ray,  
But Glorify by taking all away.

(Poems, p. 75)

This sudden reversal has caused Traherne's critics (not surprisingly) considerable difficulty in their endeavours to understand the poem as a unified statement. It is even more puzzling, given Traherne's own statement of poetic intent to be found in "The Author

to the Critical Peruser". One possibility is to see the opening of the poem as enacting a blazoning of the body which is questioned as the poem unfolds. The opening might thus appear as a false blazon, an exercise in exploring the resources of language which is negated by what follows in the second stanza:

The Naked Things  
Are most Sublime, and Brightest shew,  
When they alone are seen:  
Mens Hands then Angels wings  
Are truer Wealth even here below:  
For those but seem.  
Their worth they then do best reveal,  
When we all Metaphores remove,  
For Metaphores conceal  
And only Vapours prove.  
They best are Blazond when we see  
The Anatomie,  
Survey the Skin, cut up the Flesh, the Veins  
Unfold: The Glory there remains.  
The Muscles, Fibres, Arteries and Bones  
Are Better far then Crowns and precious Stones.

(Poems, p. 76)

Anatomy and language are now brought into conjunction. The anatomist's revelation of structure, the unfolding of surface which the poem appears to imitate itself as it passes from ornamentation to simple description, is shown to be akin to the way in which language can be held as operating upon the mind of the reader. Metaphors, like adjectives, and like skin, have to be removed in order to "display the Thing". Again, the paradoxical similarities between Traherne's effort at hymning the body and the Royal Society's endeavour to produce the "strict account" is discernable. The body, Traherne suggests, need now only be named in its various parts for its sacred "worth" to be revealed.

This reading, however, can only be partially satisfactory, since the shift in direction which takes place in the first stanza cannot



be fully accounted for. A key term in the poem in both first and second stanzas is the word "blazon". Margoliouth has suggested that the "richer blazon" which the poem indicates is to be produced refers to an earlier "blazon", that found in "The Salutation" where it was the infant's eye which perceived the sacred dimension of the body's structure. The reference might, however, equally refer to a specific generic question. In choosing to praise the body, Traherne is confronted with the problem that the chief poetic form where such a blazoning has taken place is normally associated not with religious writing but with secular verse. The "richer blazon" which Traherne offers is, perhaps, richer not so much in terms of other examples of the blazon form to be found in Traherne's own writing, but in terms, rather, of blazons to be discovered in earlier poets. The heaping up of poetic ornamentation which we might associate, for example, with Spenser's praise of his mistress's body in Amoretti XV ("Ye tradefull Merchants that with weary toyle"), or Carew's "The Comparison", or Herbert of Cherbury's "A Description" is in direct contrast with Traherne's attempts to invest the blazon form with a new and potentially sacred series of connotations.<sup>12</sup> In the secular blazon the body is, indeed, anatomized but the anatomy is one which operates through the formal discovery of comparison.<sup>13</sup> This process of anatomy and comparison is designed to show, ironically, that the body as a whole is far more valuable than its representation metonymically.

Traherne's "The Person", with its appropriately neutral title, might, in the context of the secular blazon, be thought of as attempting to escape from both a poetic form and a poetic language. The language of the blazon, indeed, is dismissed in the third stanza of the poem:

The Softer Lillies, and the Roses are  
 Less Ornaments to those that Wear  
 The same, then are those Hands, and Lips, and Eys,  
 Of those who those fals Ornaments so prize.

(Poems, p. 76)

Lillies and roses, the conventional flowers of the language of love poetry, so often invoked to describe the texture of skin, become "less ornaments" in the sacred blazon than the reality of the body and its parts. A simple naming of features, whether they are muscles and arteries, or hands and lips, becomes, for Traherne, the true ornamentation of the body. Perceived thus, the body becomes a harmonious and integrated whole. Rather than the itemized and anatomized female body of the love poem, Traherne displays the body as glorified by taking away language which has, hitherto, concealed its proportions.

"The Person", for all its confusions, reveals the body to be both a subject and a theme of Traherne's verse, as the final line of the poem suggests: "And these in all my Ways / Shall Themes becom, and Organs of thy Praise". But the complex response to the body can be thought of as an anatomization which takes place on at least three distinct levels. First, there is the literal evocation of the body's anatomy to reveal its structure through the process of naming. Secondly, there is the anatomization of language, the removal, that is, of the formal devices of language which intervene between the object and the reader. This, the process of linguistic anatomy, is an activity which seems closest to the scientific impulse in Traherne's writing. Finally, there is the anatomy of form, where Traherne sets out to display his subject in a form - the blazon - which has been stripped of all its secular associations.



To say of the poem that it appears to verge on the scientific is, however to raise the larger issue of Traherne's own relationship in his writing to the intellectual movement with which he has been most intimately associated - the platonist writers of the mid-seventeenth century.

### The Invisible Eye

To compare Traherne's praise of the body to the mechanical investigation of, say, a Thomas Willis, is to be struck not by similarity, at least initially, but by difference. Even if the programme for linguistic reform pursued by the Royal Society can be compared to the statements of linguistic intent to be found in Traherne's poetry, it is still as if they inhabited different intellectual universes. Where Willis saw the possibility of an eventual triumph of art and artifices over nature, Traherne would appear to want to re-assert the claims of nature over art, to reverse, that is, the Baconian formula whereby nature will become subservient to the use of humanity. In this, Traherne and the Cambridge platonists would appear to share a set of common concerns. But if the body is central to Traherne's vision of sacred writing, and to his whole endeavour of re-asserting the claims of nature, then it seems relevant to ask what, precisely, might the platonist response to the human frame have been.

Platonist discussion of the human body, though it was never to accept the emerging emphasis on mechanism as a means of understanding physiology, was nevertheless aware of the scientific procedures which were being established in the period. Traherne himself was educated at Oxford which was, in the 1650's, a centre of scientific activity. For his platonist contemporaries, such as Henry More at Cambridge,

early responses to the work of Oxford scientists can only be described as enthusiastic. But enthusiasm gave way to hostility as the implications of scientific methodology<sup>as</sup> began to be understood.<sup>14</sup> Thus, Henry More, in a letter to Samuel Hartlib of December 1648, was to complain that science, especially empirical science, was useless without the aid of divine intervention. Without an understanding of creational intent:

...men dig and droyle like blind molewarps in the earth, and yet never...emerge in dies lumines orae, but ly dead and buried in a heap and rabble of slibber sauce experiments.

15

The accumulation of facts, the piling up of knowledge, appears to More to be a questionable undertaking since, essentially, it is without any divine methodology.

Such hostility towards experimentation would seem to find an echo in Traherne's poetry. In the "Thanksgivings For the Body" the poet asserts that the human frame is a "...mine of riches" but such riches "...when bodies are dissected fly away" (Poems, p. 216). Dissection, then, destroys both the physical integrity of the body and its potential resources. Yet, a rather different sense of the body's potential is offered in the same poem, where it is:

A Treasury of Wonders,  
Fit for its several Ages;  
For Dissections,  
For Sculptures in Brass,  
For Draughts in Anatomy,  
For the Contemplation of the Sages.

(Poems, p. 217)

Here, the body is thought of as the centre of an activity of investigation and representation - a worthy object of scientific and artistic contemplation.



If it is possible to uncover evidence of a contradictory attitude towards the body as understood by science in Traherne's poetry, then a similarly contradictory attitude can be discovered in the work of the platonists. So, despite the evidence of More's hostility to experimental science as expressed in his letter to Hartlib cited above, the body remained an enduring object of contemplation and investigation to the platonists. For example, after Ralph Cudworth's death in 1688, a catalogue was prepared for the sale of his books which took place on 2 February 1690/1. The catalogue provides circumstantial evidence that Cudworth took an educated interest in anatomy until the very end of his life. Not only are authors from the earlier periods of anatomical study represented in his library (e.g. Fabricius, Bartholin, Spigelius, Riolan, Ent, Laurentius, Fallopius, Read, and Columbus) but Cudworth also owned copies of Lower's Tractatus de Corde (1669), Collins's System of Anatomy (1685) and the opera omnia of the high-priest of mechanism, Thomas Willis, in an edition of his works published in 1682. Harvey's De Generatione and De Motu Cordis were also in the library, as well as works by modern anatomists such as Charleton and Pecquet.<sup>16</sup>

But this is only circumstantial evidence. Indeed, it might be said that it would have been strange to have found that the author of the vast syncretic work The True Intellectual System of the Universe did not possess the kind of interest represented by such a collection. When we turn to the writings of Henry More, however, a somewhat clearer picture emerges. More, whose influence on Traherne has been traced elsewhere, though he initially welcomed the new science as it was first promulgated by the writings of Descartes, had, by 1668, rejected the implications of Cartesian methodology. "There is" he wrote in that year "no purely mechanical Phaenomenon in the universe."<sup>17</sup>

But if More was to break with Descartes over the doctrine of animal automatism, there is no doubt that he responded enthusiastically to a number of discoveries made in the field of anatomy and physiology. In 1679 a long Latin poem by More, in praise of William Harvey, was published. The poem, entitled Circulatio Sanguinis was probably written some time between 1651 and 1653.<sup>18</sup> The poem begins by remarking upon the irony of intellectual history whereby the movement of the planets had been observed from the earliest ages, but that it is only in the modern age that the movement of the heart and blood in animals had been observed. The circulation of the blood is then compared, in an involved Homeric simile, to the circulation of water in the macrocosm, before a careful account of Harvey's methods and conclusions is embarked upon. The important point is the command of detail which the poem exhibits. The "leaping heart", for example:

...pours out at least two thousand drams of blood in an hour and the sigmoid valves do not allow it to back up. From there the blood must take the path of the soft veins. Then should you bind your hands or arms with a strange knot, a little later your fingers grow cold, but if you loosen the bonds so that the artery which has been compressed by a tight knot is not constricted, at once the hand swells immensely from the overflow of inrushing blood, for which that over-loaded part of the body is able to find no use, or only a small use. From this it is evident that there is in the outermost part such an excess of blood that it would burst all the veins there, unless they carry it directly back to the heart.

19

As this translated extract from the poem demonstrates, More's Circulatio Sanguinis is rather more than an eulogy to Harvey the man. Instead, More has composed a considered account of the theory of circulation which indicates not only a close reading of Harvey's ideas but also, just as importantly, a grasp of the methodology employed by the scientist. It is, one commentator has written, as though More



wrote the poem "with a copy of De Motu Cordis at his elbow."<sup>20</sup>

Despite what More had written, then, in his letter to Hartlib in 1648, we can see him here, after 1651, to be enthusiastically engaged on behalf of the kind of scientific exploration which Harvey's work represented. Nor is it the case, moreover, that Circulatio Sanguinis stands in isolation from the main body of More's writing. Whatever may have been More's later objections to empirical science, the empirical exploration of the body seems to have possessed considerable fascination for the platonist. We can see this fascination demonstrated in More's Antidote Against Atheisme (1653) which set out to argue that the configuration of the world is the product of divine wisdom rather than the results of "Fortune or fermented matter".<sup>21</sup>

In the Antidote More sets out to demonstrate the falsity of the Cartesian insistence that the operation of the soul is subject to a set of mechanical rules made manifest in the operation of the body's spontaneous motions - the beating of the heart, or breathing. The soul, for More, is not a "meer modification" of the body, but a substance entirely distinct from it. Yet, ironically, in order to demonstrate this proposition, More employs the very methods which his intellectual energies are directed towards questioning. Empirical demonstration lies at the very centre of More's thesis. For example, More attempts to suggest that to understand the brain's operations through the contrivances of dissection, or through the interpretation of the evidence revealed in anatomical investigation, is useless. Instead, More tries to assert the miraculous nature of the soul's operation in the body and on the body:

If you heard but the magnificent stories that are told of this little lurking Mushrome, how it does not onely heare and see, but imagines, reasons, commands the whole fabricke of the Body more dextrously than an Indian boy

does an Elephant, what an acute Logician, subtle Geometrician, prudent Statesman, skillfull Physician, and profound Philosopher he is, and then afterward by dissection you discover this worker of Miracles to be nothing but a poor silly contemptible knobb, or protuberancy consisting of a thin Membrane containing a little pulpous matter...would you not sooner laugh at it then go about to confute it?

(Antidote, pp. 39-40)

Dissection alone, More is saying, is not enough to assert the miraculous nature of the body's structure. Yet it is, paradoxically, only through dissection that the true nature of this wonderful organism is revealed. It is only when the anatomist's knife reveals "a little pulpous grey matter" and it is recalled that the brain commands the body "more dextrously than an Indian Boy does an Elephant" that derisive mocking of the claims of empirical science can begin.

We might contrast this paradoxical attitude towards the dissected body to what Traherne has to say about the body. Traherne, like More, seems to exhibit a paradoxical sense of the body as both resisting and accepting anatomical scrutiny. So, in "The Person", as we have seen, the glory of the body, though undisturbed by dissection, is also revealed by anatomical processes. On the other hand, as the "Thanksgivings for the Body" claim, such a procedure might be thought of as disturbing the organic integrity of the organism. The act of dissection both reveals and destroys, it seems. The activity of the creator is visible in the body, under the scalpel, and the contemplation of this activity should have a corresponding power of affecting the observer. Just as More discovered the body to be a mysteriously wonderful structure through dissection, so Traherne imagines the body as calling forth rapturous responses in the minds of spectators once its anatomical structure is revealed. The inward parts, we learn in another passage from the "Thanksgivings for the Body":



Are { The Amazement of the Learned,  
 The Admiration of Kings and Queens,  
 The Joy of Angels;  
 The Organs of my Soul,  
 The wonder of Cherubims.

(Poems, p. 216)

Passages such as these reveal the full dimension of the intellectual dilemma which More and Traherne share. It is not that the philosopher and the poet stand opposed to empirical science per se, but then neither is it the case that they embrace it without question. Science would appear, for Traherne, to both deepen the divine mystery of creation whilst, in so doing, it also manages to question the whole-ness of that creation. For More, awareness of this dilemma is constantly present, and the internal structure of the human body in particular becomes an emblem of both acceptance and rejection of science. The world is the product of a divine maker, it "can never be contriv'd into that Order it is without the superintendency of God" he claims (Antidote, p. 43). Even Galen, More claims, was so dazzled by the complexity of the structure he had revealed that "...he could not but adjudge the honour of a hymn to the wise creator of it" (Antidote, p.94), just as Traherne hymns God in the "Thanksgivings" poems. Yet juxtaposed with the rhapsodic praise of God is the nascent voice of the empirical scientist. It may be concluded that the body is the work of a wise God, but the true wisdom of the creator can only be fully appreciated when, for example, the heart's structure is investigated and reveals:

...two Ventricles and its many Valvulae, so fram'd and situated as is most fit for the reception and transmission of the bloud, which comes about through the Heart, and is sent thence away warm to comfort and cherish the rest of the body:

(Antidote, p. 97)

This, it need hardly be said, is the voice not of rhapsodic praise, but experimental investigation.

For Traherne, there is no escape out of the dilemma posed by science. Instead, his poetry represents an acceptance of dualism, though of a clearly platonic rather than cartesian cast. In the poem "Sight" two distinct kinds of investigation are acknowledged, the first kind is limited, corporeal, and "of narrow bound":

Those Eys of Sense  
That did dispense  
Their Beams to nat'ral things,  
I quickly found  
Of narrow Bound  
To know but earthly Springs.  
But that which throu the Hevens went  
Was excellent,  
And Endless; for the Ball  
Was Spirit'all:  
A visiv Ey things visible doth see;  
But with th'Invisible, Invisibles agree.

(Poems, p. 133)

Here, the two kinds of investigation rest in an uneasy hierarchy. It is important to note, however, that the poem does not argue for the abandonment of knowledge discerned by the "visiv Ey". Neither is it the case that science has to be opposed by fideism. Rather, the poem understands a hierarchy of knowledge, where the "Eys of Sense" are employed in the first instance but where such knowledge which is thus uncovered is understood within the framework of other forms of knowledge - forms discerned by a gaze perhaps more penetrating than any anatomist might possess.

We might understand Traherne's poetry, then, as an attempt at affirming the relative importance of the "invisible" eye at a point in time when intellectual endeavour has been concentrated on discerning and understanding the world as revealed to the enquiring gaze of the



rational scientist. But, again, this does not necessarily entail understanding Traherne as a backwards-looking conservative. Indeed, for both Traherne and the writers associated with the platonists of the mid-seventeenth century, the world which had been revealed by Harvey and his contemporaries was a source of excitement. In Traherne's case, it would not be an over-statement to say that the discoveries of Harvey and his contemporaries, in all fields of knowledge, were to provide him with both subject-matter and (just as importantly) form, from which he was able to create a dense texture of meditative prose and poetry.

It is possible to see this fascination manifested in Traherne's writing in a stylistic device which has been the subject of considerable comment amongst his modern commentators.<sup>22</sup> That device is the catalogue - the listings or itemizations - associated in particular with the Thanksgivings poems. These lists appear to entail an abandonment of conventional notions of syntax and figurative language, and to call attention not to the resources of poetry, but rather to the things in themselves. As such, we can understand the catalogue as the embodiment of that call for a new kind of poetry suggested in "The Author to the Critical Peruser". The interior features of the body, for example, can be evoked in a list in which descriptive language can be seen to gradually decay as we move through the items which are delineated:

Limbs rarely poised,  
                     And made for Heaven;  
 Arteries filled  
                     With celestial Spirits:  
 Veins, wherein Blood floweth,  
                     Refreshing all my flesh,  
                     Like Rivers.  
 Sinews fraught with mystery  
                     Of wonderful strength,  
                     Stability,  
                     Feeling.

(Poems, p. 215)

The point is not that the epithets accorded to each of these features are, in themselves, conventional. Rather it is the stress placed on the object in itself, as much a function of typography as metaphor or simile, which is peculiar to Traherne. At its most extreme, this form of writing might produce what Carl Selkin has described as a "static eternality" where the reader's eye:

...must become like the organ of God as described by Nicholas of Cusa, who contrasts man's limited vision with God's unlimited sight by comparing them as readers; the first reads a page linearly, each word in succession, but God sees the entire page all at once. 23

In this formulation, the poem as it appears on the page, and its deliberate disjointing of conventional syntax, conspire to allow the reader to perceive the poem synchronically as well as diachronically:

But for the diviner Treasures wherein thou hast endowed	
My Brains,	Mine Eyes,
My Heart,	Mine Eares,
My Tongue,	My Hands,
O what praises are due unto thee,	

(Poems, p. 216)

Confronting a poem in this form presents the reader with the problem not of what it might mean, but how we might begin to read it. As such, the poem presents, in microcosm, the outline of the much larger problem which faced seventeenth-century scientists once the old, harmonized, picture of the world as a unified structure had begun to fall apart. If the world is no more than a collection of observable features, then into what order, or grammar, might those features be arranged to allow a new set of possible meanings to be arrived at?

It is this problem, one that, again, Traherne and his scientific contemporaries can be thought of as sharing, which the Crusoe-like



lists which dominate so much of Traherne's writing address. A list may help to order experience, or at least impose an order, so that interpretation might begin. But, equally, lists might also suggest variety, complexity, even the impossibility of discerning order. Malcolm Day has suggested that Traherne's lists create an impression of "limitless and unrestrained pouring forth" as though the features of the world have lost their power to be discerned as anything other than an expression of cornucopian plenitude.<sup>24</sup> This kind of limitless plenitude is found, for example, in the "Thanksgivings for the Body" where God is praised for his creation of:

...all the Trades, variety of Operations, Cities,  
Temples, Streets, Bridges, Mariners Compass, admirable  
Picture, Sculpture, Writing, Printing, Songs and Musick;  
wherewith the World is beautified and adorned...

(Poems, p. 217)

The unstated term which can make sense of this list, however, is not God (the object of praise) but humanity. All of these activities and features are the products of human ingenuity rather than divine workmanship. To understand the cataloguing impulse in this way, however, is to ignore the significance which Traherne sought to invest in the catalogue. That significance can be understood in terms of a very similar feature of the Cambridge platonists' work, itself a response to the difficulties which the seventeenth-century scientist discerned once the old forms of understanding had begun to be displaced.

When Henry More began to rebel against his earlier interest in Cartesian methods, he felt that, in Charles Webster's words:

...the most effective means of undermining the mechanical hypothesis was to collect examples of phaenomena which could only be explained by reference to divine agency.

Collecting exempla, and publishing them, an activity upon which the Royal Society was busily engaged in the 1660's and later, is virtually the raison d'être of More's Antidote Against Atheisme. It was a similar impulse to that which lay behind the vast systematization of knowledge represented by Cudworth's True Intellectual System of the Universe (1678).<sup>26</sup> For Traherne, it is not difficult to see that the platonists' gathering together of information in order to effect an overthrow of the mechanical hypothesis could be put to good use in poetry which sought to assert the variety of creation.

The gathering together of knowledge and information, the complete taxonomic impulse which lay behind the Royal Society's programme, is thus, for the Platonists, part of an intellectual counter-revolution. But for Traherne, though it may have been just that, it was, more importantly, an act of intellectual piety. So, looking back on his life as a student at Oxford, Traherne recalls that natural philosophy helped to prepare him for that most important state in his religious life - the achievement of "Felicity":

...I saw that Logick, Ethicks, Physicks, Metaphysicks, Geometry, Astronomy, Poesie, Medicine, Grammar, Musick, Rhetorick, all kinds of Arts Trades and Mechanismes that adorned the world pertained to felicity...

(Centuries, III. 36)

This universality of response to the products of human intelligence, or to the methods by which that intelligence can act upon the world in which it finds itself, finds an echo in Traherne's veneration for natural philosophy. Natural philosophy is both a human and a divine science, in that:

...it leads us into a diligent inquisition into all Natures, their Qualities, Affections, Relations, Causes, and Ends, so far forth as by Nature and Reason they may be known. And



this Noble Science, as such is most Sublime and Perfect, it includes all Humanity and Divinity together GOD, Angels, Men, Affections, Habits, Actions, Virtues; Evry Thing as it is a solid intire object singly proposed, being a subject of it, as well Material and visible things...

(Centuries, III. 44)

This is a reifying process which, though it would appear to unite, in Traherne's terms, the visible and the invisible, is in fact only preparatory to the highest form of knowledge, that which transcends human reason. As a preparative, though, natural philosophy performs a highly significant function:

...it Openeth the Riches of Gods Kingdom and the Natures of His Territories Works and Creatures in a Wonderfull Maner, Clearing and preparing the Ey of the Enjoyer.

(Centuries, III. 44)

Again, fideism is not being opposed to rationalism. Instead, Traherne is once more insisting on a hierarchical ordering of knowledge in which the products of the empirical scientists can be thought of as forming the first stage in the advancement of divine learning. In fact Traherne seems to suggest that the eye of the natural philosopher, having been cleared and prepared, is ready to scrutinize the divine world with the most acute of gazes.

The key term for Traherne, in his idea of enquiry, is that phrase with which the passage quoted above ends - "the Ey of the Enjoyer". Enjoyment, as a response to the world, was crucial to Traherne's conception of intellectual endeavour, and it was, perhaps, the end towards which both his poetry and his meditative prose was directed. To study the world for the sake of studying the world was of little value to Traherne. Likewise to study nature for material ends, to study it, that is, with what Cowley in his Proposition termed a sense

of "vertuous covetousness" held no attraction for Traherne. If, in the seventeenth century, the prospect of dominion over nature was the glimpsed end, then it is here, in rejecting such a prospect, that Traherne and the empirical scientists begin to part company. For Traherne the task in hand was to study nature in order to understand and appreciate its "value". But the "value" of nature is neither a commercial nor a philosophical term. It is, rather, a purely spiritual perception of created nature's richness as it displays the mind of the creator. So Traherne writes:

He that knows the Secrets of Nature with Albertus Magnus, or the Motions of the Heavens with Galilao, or the Cosmography of the Moon with Hevelius, or the Body of man with Galen, or the nature of Disease with Hippocrates, or the Harmonies in Melody with Orpheus, or of Poesie with Homer, or of Grammer with Lilly, or of whatever else with the greatest Artist; He is Nothing. if he knows them meerly for Talk or idle Speculation, or Transeunt and External Use. But he that knows them for Valu, and knows them His own: shall Profit infinitely.

(Centuries, III. 41)

The notion of value, which we might connect in Traherne's writing to the evocation of richness, and, indeed, to the images of rich and wrought objects, is set in direct opposition to the taxonomic projects of seventeenth-century science. For Traherne, the enquires<sup>i</sup> of Boyle, Hooke, Power, and the Royal Society represented knowledge gained for "Transeunt and External Use".<sup>27</sup>

For Traherne and the platonists the gathering of information mirrored the collections which the Royal Society proposed to establish. But the ends of such collections were quite different. Where the scientists of the period were embarking upon that intellectual path which, so they believed, would lead to the eventual unravelling of the mysteries of nature, Traherne offered an alternative. Science, rather



than working towards an end, was understood by Traherne as offering a point of departure.<sup>28</sup>

The "Thanksgivings for the Body" conclude with a rhapsodic hymn of praise and gratitude for the body as a physical entity, but one which is interlayered with a sense of the body's fragility:

I give thee thanks...for all my five senses, and all  
the pores of my Body, so curiously made as before recited,  
and for the preservation as well as Use of all my limbs  
and Senses, in keeping me from Precipices, Fractures, and  
Dislocations in my Body...

(Poems, p. 228)

Thanksgiving, or gratitude, is a rather different response to the body than that which Traherne's scientific contemporaries sought to evoke. It is, though, in keeping with Traherne's own complex belief in the significance of the human frame. More than any other poet in the period, Traherne seeks to assert not only the divine configuration of the body, but also its intense fragility. Viewing the body from without (the reverse, in many ways, of Donne's understanding of the body) Traherne sees it as a structure which is easily disturbed, one that is susceptible to "Fractures and Dislocations".

The significance of Traherne's vision of the body to this study will, I hope, be apparent. It is not that Traherne understands the body poetically, in a way that science, in the period, was to cease to understand it. Neither is it the case that Traherne was simply an intellectual conservative whose writings shared none of the concerns of his contemporaries. In fact, Traherne, in common with the group with which he has been most closely associated, the platonists, was very much aware of the new methods of understanding both the human frame, and the universe in general. Instead, Traherne's writing presents an image of the body which both scientists and poets in the

period also would appear to have been aware of. That image is one that is aware of the transgressive nature of human reason. The anatomist's skills, in the seventeenth century, were exercised in the pursuit of knowledge but in a context in which such a pursuit was itself surrounded by traditional fears and taboos. It is this, perhaps, which allows us to explain the continuing fascination which anatomy held for the poets, divines, philosophers, and scientists with which this study has been concerned. Knowledge of the body is an emblem of knowledge itself, as Donne's anniversary poems had sought to explain. But the pursuit of knowledge was itself not a disinterested pursuit. Cowley's "Ode Upon Dr Harvey", for example, does not end with the triumph of experimental science, but with the revenge of nature upon the scientist. One means of keeping this vengeful nature at bay was to invest the anatomist's practise with all the trappings of spectacle and art which a structure such as the Leiden anatomy theatre embodied, and which the mythologizing devices of poetry sought to delineate.

Seen from this perspective, the juxtaposition of literature and science, the poem and the anatomical text, is not, in any sense, an opposition, but instead part of a common endeavour. A poet such as Traherne begins to appear not as the vanquished opposition to the onward march of scientific rationalism, but as a vital member of the concerted effort, in the later seventeenth century, to understand the world. For, if anatomy is understood as transgressing what might have been the traditional limits to human reason, and, indeed, was a highly visible example of scientific exploration, then it was important to utilise all the resources of art to validate the scientific process. In the poem "Sight" Traherne concludes with a stanza which might be read not as asserting the autonomy of divine



poetry (as Benlowes understood it) but as promoting further enquiry at the point when science was in most need of support. If the "visiv" eye is of "narrow bound", then the invisible eye, nevertheless, may have a part to play:

This Ey alone,  
 (That peer hath none)  
 Is such, that it can pry  
 Into the End  
 To which all things tend,  
 And all the Depths descry  
 That God and Nature do include.

(Poems, p. 133)

To pry into the end is to presume, as Traherne and his contemporaries were aware, on the patience of God. Prying and peering, as we have seen, are precisely the endeavours of the anatomists. Those endeavours were not invested with the comfortable neutralism, in the seventeenth century, of modern-day disinterested or utilitarian science. Rather, to pry and peer was to risk just that response which Milton's Adam was to provoke in Raphael, and the truly curious Eve in God.

We might conclude, then, that it is not that poetry and science, when they confront the opened human body no longer speak the same language at the close of the seventeenth century. Instead, science no longer needed the protection of poetic discourse, since it had uncovered its own validating authority. That authority, the pursuit of knowledge for what Traherne was to term "Transeunt and External use", is one of which we, in the twentieth century, are only too uncomfortably aware.

## Notes

- <sup>1</sup> Graham Parry, Seventeenth-century Poetry: The Social Context, (London: Hutchinson, 1985) p. 117; Malcolm M. Day, Thomas Traherne, (Boston, Mass.: Twayne's English Authors Series, 1982) p. 3.
- <sup>2</sup> A. L. Clements, The Mystical Poetry of Thomas Traherne, (Cambridge, Mass.: Harvard U. P., 1969) p. 8.
- <sup>3</sup> Day, p. 17. On Traherne's "conservatism" see also S. Sandbank, "Thomas Traherne on the Place of Man in the Universe," in Alice Shalvi and A. A. Medilow (eds.), Scripta Hierosolimitana: Studies in English Language and Literature, Publications of the Hebrew University, Jerusalem, No. 17 (Jerusalem: The Magnes Press, 1966).
- <sup>4</sup> Though it should be noted that none of the writings of either Cudworth or Whichcote were published until after Traherne's death in 1674. Culverwel, Smith, and Henry More had, though, published during Traherne's boyhood. For discussion of Traherne and platonism see: Francis L. Colby, "Thomas Traherne and Henry More," MLN 62 (1947) pp. 490-492; Carol Marks, "Thomas Traherne's Commonplace Book," Papers of the Bibliographical Society of America, 58 (1964) pp. 458-465; T. O. Beachcroft, "Traherne and the Cambridge Platonists," Dublin Review 186 (1930) pp. 278-290; K. W. Salter, Thomas Traherne: Mystic and Poet (London: Edward Arnold, 1964) pp. 80-91; Carol Marks, "Thomas Traherne and Cambridge Neoplatonism," PMLA 81 (1966) pp. 521-534. On Cambridge Platonism itself, see: W. C. De Pauley, The Candle of the Lord: Studies in the Cambridge Platonists, (London: Church Historical Society Publications, n. s. 8, 1937); Ernest Cassirer, The Platonist Renaissance in England, (Edinburgh: Nelson, 1953); Rosalie L. Colie, Light and Enlightenment. A Study of the Cambridge Platonists and the Dutch Arminians, (Cambridge: CUP, 1957); Robert Hoopes, Right Reason in the English Renaissance, (Cambridge, Mass.: Harvard U.P., 1962); Gerald R. Cragg (ed.), The Cambridge Platonists (New York: O.U.P., 1968) pp. 3-31; J. D. Roberts, From Puritanism to Platonism in Seventeenth Century England, (The Hague: Martinus Nijhoff, 1968); C. A. Patrides (ed.), The Cambridge Platonists, (London: Edward Arnold, 1969).
- <sup>5</sup> It is generally assumed that the "sources" for Traherne's writing are to be found at considerable remove from the Royal Society, or figures associated with it. Patrick Grant, for example, sees the pre-Nicene patristic writer, St. Irenaeus, as an important precursor of Traherne. Malcolm Day, on the other hand, has traced the influence of contemporary religious writing on Traherne, in particular the use made of the Hexameral tradition and the writings of the Jesuit, Louis de la Puente. Louis Martz, in pursuing the theme of the importance of St.



Bonaventure's patterns of meditation upon the Centuries (rather than the purely Ignatian modes which both Martz and Day agree lie at the heart of the "Thanksgiving" poems) also cites the importance of St. Augustine's Confessions. See: Patrick Grant, "Original Sin and the Fall of Man in Thomas Traherne," ELH 38 (1971) pp. 40-61; Day, pp. 54-67; Louis L. Marts, The Paradise Within: Studies in Vaughan, Traherne, and Milton (New Haven and London: Yale U. P., 1964) pp. 35-43.

<sup>6</sup> All references to Traherne's writings are to Thomas Traherne, Centuries, Poems, and Thanksgivings, ed. H. M. Margoliouth. 2 vols. (Oxford: Clarendon Press, 1958). In quoting Traherne's poetry, I have followed the standard practice of referring to the 'D' version (Poems contained in Bodleian MS Eng. Poet C. 42) rather than the 'F' (Poems contained in BM MS Burney 392) where there are two versions of the same poem, one of which contains the revisions of Philip Traherne.

<sup>7</sup> Margoliouth notes that Traherne's epithet "living engines" is derived from Samuel Butler's Hudibras (1662). The distinction here is, however, between an engine made by God, which can be said to be living and an engine made by man - a truly dead engine. The distinction is explained in John Ray, The Wisdom of God Manifested in the Works of Creation, (London, 1691) p. 131. The distinction is, perhaps, an important one since it allowed anti-cartesian writers to use the mechanistic metaphor which owed so much to Descartes, Discourse de la Méthode V, without adopting the doctrine of animal automatism per se. For a further usage by Traherne of the machine metaphor see Poems, p. 186.

<sup>8</sup> Marks, "Thomas Traherne and Cambridge Platonism," p. 141.

<sup>9</sup> Ellrodt, "Scientific Curiosity," p. 197.

<sup>10</sup> Sandbank, p. 136.

<sup>11</sup> For a discussion of this poem, which does not quite surmount the problems which it poses, see Clements, p. 141.

<sup>12</sup> See Edmund Spenser, Poetical Works, ed. J. C. Smith and E. De Selincourt, (London: OUP, 1912 rpt.) p. 565; Thomas Carew, Poems (London, 1640) p. 168; Edward, Lord Herbert of Cherbury, Poems, ed. G. C. Moore Smith (Oxford: Clarendon Press, 1968) pp. 2-5.

<sup>13</sup> The invention of the blazon form has been attributed to Clement Marot (1496-1544) with the publication, in 1534, of Blason du beau tetin. On Marot, see A. J. Krailsheimer, The Continental Renaissance (Sussex: The Harvester Press, 1978) p. 174. One of the earliest collections of blazons, however, emphasised exactly the same connection between anatomy and the blazon to that found in Traherne's "The Person", though in a context which was erotic. This collection, entitled S'ensuivent les



Blasons Anatomiques du Corps Feminine was first published in 1536, though no edition earlier than the edition published at Paris in 1550 has survived. The collection was reprinted at Antwerp in 1866. Reference to the 1536 edition can be found in George Draudius, La Bibliothecque Universail (Frankfurt, 1625) p. 201. Further examples of the secular English blazon might include Campion's Song "Her Rosie Cheekes" in W. R. Davies, The Works of Thomas Campion, (New York: Norton, 1970) p. 112; Donne's Elegie XVIII ("Loves Progresse"); and Crashaw's chaste appreciation in "Wishes to his (Supposed) Mistress". The common feature of all these texts is the partitioning of the female body into a series of poetic epithets. Olivia's self-itemization in Twelfth Night (III. i. 233-237) might be thought of in this context as an ironic commentary on literary practices.

<sup>14</sup> More's initial enthusiasm for Cartesianism, and his subsequent rejection of the methodology, is discussed in Charles Webster, "Henry More and Descartes: Some New Sources," The British Journal for the Advancement of Science 4 (1969) pp. 359-377. For further discussion of the acceptance and/or rejection of Cartesianism amongst the platonists (a topic upon which there is considerable disagreement) see: Marjorie Nicholson, "The Early Stages of Cartesianism in England," SP 26 (1929) pp. 356-374; S. P. Lamprecht, "The Role of Descartes in Seventeenth Century England," Columbia University Studies in the History of Ideas 3 (1935) pp. 181-242; J. Saveson, "Descartes' Influence on John Smith, Cambridge Platonist," JHI 20 (1959) pp. 255-263; J. Saveson, "Differing Reactions to Descartes among the Cambridge Platonists," JHI 21 (1960) pp. 560-567.

<sup>15</sup> Cited in Webster, Great Instauration, p. 147.

<sup>16</sup> See Bibliotheca Cudworthiana sive catalogus variorum librorum plurimis facultatibus insignium bibliothecae instructissimae rev. doct. Dr Cudworth, (London, 1690/1).

<sup>17</sup> Henry More, Divine Dialogues (London, 1668), quoted by Webster, "Henry More and Descartes" p. 376.

<sup>18</sup> See Wallace Shugg, "Henry More's 'Circulatio Sanguinis': An Unexplained Poem in Praise of Harvey," (trans. Walter Sherwin and Jay Freyman), BHM 46 (1972) 180-189.

<sup>19</sup> The Complete text of the poem can be found in Henry More, Philosophical Poems, ed. Geoffrey Bullough (Manchester: Manchester U.P., 1931) pp. 169-172.

<sup>20</sup> Shugg, p. 187.

<sup>21</sup> Henry More, An Antidote Against Atheisme, (London, 1653) sig. B2<sup>v</sup>.

<sup>22</sup> see Day, p. 67-81; Clements, p. 55; Barbara K. Lewalski, Protestant



Poetics and the Seventeenth Century Religious Lyric, (Princeton: Princeton U.P., 1979) p. 383.

<sup>23</sup> Carl M. Selkin, "The Language of Vision: Traherne's Cataloguing Style," ELR 6 (1976) p. 97.

<sup>24</sup> Day, p. 81

<sup>25</sup> Webster, Great Instauration, p. 149.

<sup>26</sup> On More, see Webster, Great Instauration, 148-151; on Cudworth, see Webster, Great Instauration, 148-150.

<sup>27</sup> On the collection and dissemination of knowledge, see Hunter, Science and Society, pp. 32-58; Vickers, English Science, Bacon to Newton, pp. 5-7.

<sup>28</sup> The figure who is perhaps most comparable to Traherne in the belief in the transcendent use of collected knowledge is John Ray. A taxonomist who published the first local survey of flora (Catalogus Plantarum circa Cantabrigium published in 1660), Ray's The Wisdom of God Manifested in the Works of Creation (given as a series of lectures in 1659/1660, though not published until 1691) echoes Traherne's Thanksgivings poetry at significant points. In particular, he conceives of man's ability to utilize the products of nature as itself constituting a prayer of thanksgiving and gratitude to God (Wisdom of God, pp. 112-118), and he also uncovers special significance in the anatomized human form in which he discovers "something of the wisdom and goodness of God" (Wisdom of God, p. 151). For a discussion of Ray, see Webster, Great Instauration, p. 150-151.

Published Material Submitted with the Thesis

"Unattributed Manuscript Corrections to a Poem by John Davies of Hereford," Notes and Queries 28 (1981) 40-41

"The Mint at Segovia: Digby, Hobbes, Charleton, and the Body as a Machine in the Seventeenth Century," Prose Studies 6 (1983) 21-35

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